



OPERATOR HANDBOOK

CHYRON[®]

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SECTION 1

SYSTEM DESCRIPTION

1.1 INTRODUCTION

The VP-2 Character Generator is a high-resolution, low-cost single-channel character and graphics generator with many features usually found on elaborate studio systems. The VP-2 is controlled from an alphanumeric keyboard and is capable of full stand-alone operation. It can also be used in a downstream or upstream configuration, combining external video with VP-2 graphics.

Typical applications include video entertainment production, industrial training, or taped commercials. Other practical uses include information displays such as those at hotels, airports, or schools, financial or business sales projections, progress charts, product breakdowns, etc.

1.2 EQUIPMENT SUPPLIED

Equipment supplied as a VP-2 system consists of the VP-2 Character Generator, a keyboard, and three fonts mounted on the font board in the generator. Equipment required but not supplied includes a video monitor and cables. Additional character, logo, or special symbol fonts are available from Chyron.

1.3 FEATURES

The VP-2 has a variety of features that make it suited for tasks ranging from simple titling to a wide range of complex graphics displays. The VP-2 can display up to 36 different fonts at one time, and store pre-programmed display sequences. The system is menu driven and has numerous features such as italics, edges, palette animation, and can display up to 16 colors at one time from a selection of 512. It has background editing capability, and a storage capacity of up to 400,000 characters on each disk. The following paragraphs will describe some of these features in greater detail.

1.3.1 MENU DRIVEN

The VP-2 is operated through a sequence of prompting menus in plain English. Starting with the main menu, which is displayed after the power-up diagnostics. The operator then makes selections from the main menu and subordinate menus that follow. The operator receives guidance throughout and needs only to type in requested information in indicated locations. When a page is complete and saved to the disk the system returns to the main menu.

1.3.2 INTERACTIVE COMPOSITION AND EDITING

One of the most important features is the availability of interactive composition and editing. Once the operator has created a page, any element of the page (font characteristics, background, edges, etc) can be changed using an edit mode. The VP-2 also lets you reposition characters to any location on the page, and insert or delete characters, words or lines. An added asset during editing, is that the VP-2 maintains the original display in a backup file in case of dual need or the need to return to the original page makeup.

1.3.3 BACKGROUND

A background can be solid or varied in stripes or bands in any color variation. The background editing capability allows you to copy a partial background using a cut-and-paste function.

1.3.4 ITALICS AND EDGES

Any font character can be italicized from extreme left to extreme right by simple menu selections. Edge types by menu selection are single edge, continuous, or bordered edges. The edge size is selected by the user and can be any of the 16 colors.

1.3.5 AUTO DISPLAY

Auto display consists of the automatic display of a sequence of pages previously created by the operator. The operator can create as many pages as desired, and then enter the auto display mode. The operator assigns a sequence order, repetition rate, and the number of repetitions. The pages can then be displayed automatically or manually cued by the operator.

1.3.6 PALETTE ANIMATION

Palette animation is the ability to specify color changes on any graphic at specific intervals, creating the effect of flashing colors, on a previously created page. Once a page is created, the operator enters the palette animation mode to specify repetition, color changes, and delay for each step. Color selection can be from any of 512 shades.

1.3.7 GENLOCK AND KEYING OF EXTERNAL SOURCE

The VP-2 will genlock (synchronize) to an external source; and it can be keyed over this video source by assigning a color to be made transparent, by a key color command. The keyer has a variable mix rate to provide a hard or soft cut key. For example, in downstream configuration the VP-2 circuits genlock to composite video signals. In upstream operation, the VP-2 is genlocked to a master sync signal, and the composite video output is fed to a master program switcher.

1.4 VP-2 OPTIONS

Three options are currently available for the VP-2; Dual Disk storage, RGB Component Video, and a VP Multifont/Grab which can be used with the Chyron Chameleon paint system. There are also many additional fonts available for the VP-2.

1.4.1 DUAL DISK STORAGE

The Dual Disk Expansion chassis is an add-on device for the VP-2 Character Generator. The chassis provides two floppy disks on-line simultaneously with the VP-2 and, as a result, triples the storage capacity of the VP-2. Refer to Chyron Publication No. 2A00876 for further information.

1.4.2 RGB COMPONENT VIDEO OPTION

The VP-2 can be modified by the addition of an RGB board that enables the unit to generate both NTSC composite and RGB component video. With RGB video, images are encoded into three separate signals (Red, Green, and Blue respectively) which produce sharper displays, since the timing of each signal is precisely controlled. RGB video can also be converted into NTSC or PAL composite video, suitable for broadcast and provides a sharper resolution image. Refer to Chyron Publication No. 2A00895 for further information.

1.4.3 MULTIFONT/GRAB OPTION

The VP Multifont option provides the operator with up to 36 on-line fonts from which to choose. The new fonts have up to six font sizes on each font chip.

If the VP-2 is upgraded to Multifont, one font (Helvetica Medium) is included in the update package. If the VP-2 is purchased with the Multifont option installed, the standard three fonts (Helvetica Medium, Helvetica Bold and the graphics font) are the new multi-size chips.

VP Grab allows the operator to combine the high resolution text of the VP-2 with the extensive graphics of the CHAMELEON paint system. This option can be ordered with a new VP-2, or as a dealer update for existing units. For further information refer to Chyron Publication No. 2A01112.

SECTION 2

INSTALLATION AND INITIAL ADJUSTMENT

2.1 GENERAL

This section contains complete instructions for unpacking and set up of the VP-2 System. The section also includes a description of three system configurations, power up diagnostic, performance adjustments, and how to install an external keyer switch.

2.2 UNPACKING SYSTEM

Unpack the VP-2 System as follows: (Note that you should store the packing material in case it is needed for future shipments.)

1. Remove and retain packing list from side of shipping carton.
2. Open shipping carton as indicated "THIS SIDE UP".
3. Remove all packing material.
4. Carefully remove VP-2 and all accessory material from carton and check against packing list.

Accessories shipped with the VP-2 include rack mounting brackets, two blank floppy disks, three font chips, and a molex connector and four contact pins. The connector is used to connect a momentary contact switch for keying and page advance.

2.3 RESHIPMENT

If it is necessary to reship the VP-2 System, we recommend that the original packing material be used. Also, the shipping container should be marked with a Material Return Authorization (MRA) if the unit is to be returned to Chyron for any reason.

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NOTE

A Material Return Authorization is obtained by contacting the Chyron Customer Service Department at (516) 845-2132.

2.4 INSTALLATION

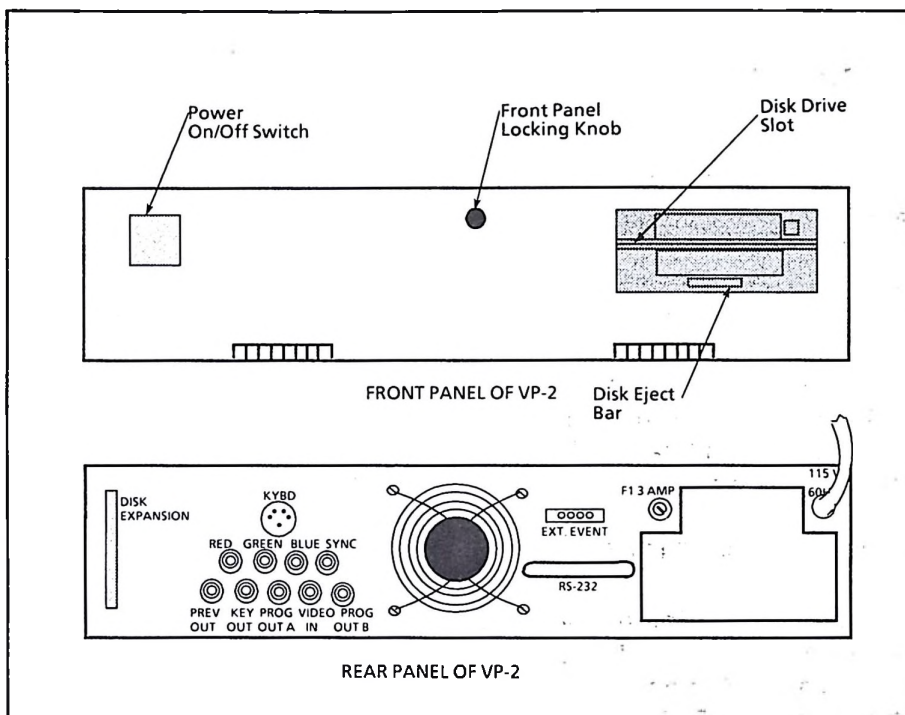
2.4.1 MOUNTING

The VP-2 can be located on a table top or can be rack mounted, and is shipped with L-brackets that can be used as front support only for rack mounting. However, the rear of the unit must be supported to ensure the long-term mechanical integrity of the chassis and cable connectors. Optional slide brackets are available from Chyron that satisfy all support requirements.

To ensure that the unit has adequate ventilation make sure that the vents in the bottom of the chassis are kept free of obstructions. Failure to do so will cause the unit to overheat, which may cause a system malfunction.

2.4.2 CABLE CONNECTIONS

All connectors for the VP-2 are located on the back panel, as identified in Figure 2-1. The cable from the keyboard is connected to the KYBD connector on the rear panel. A video monitor is normally connected to PREV OUT.



BNC Coaxial Connections:

- VIDEO IN - connects to source input video for downstream keyer operation.
- KEY OUT - connects to key input for video switcher for upstream keyer operation.
- PREV OUT - connects to preview video monitor for stand alone or upstream video operation.
- PROG A,B - connects to output video devices for downstream keyer operation.

Other Connections:

- EXT EVENT - manual insert - pin 3 (GND/Black)
- pin 4 (Signal/White)
- manual page advance
- pin 1 (GND/Black)
- pin 2 (Signal/White)

Figure 2-1. VP-2 Character Generator, Front and Rear Panels

2.5 SYSTEM CONFIGURATIONS

The following paragraphs describe three possible configurations that can be used for the VP-2; stand-alone, downstream, and upstream.

2.5.1 STAND-ALONE SYSTEM CONFIGURATION

Figure 2-2 shows a basic stand-alone configuration for the VP-2. In this configuration, the VP-2 generates its own video output graphics. The PREV OUT connector supplies video to the monitor for operator control and adjustment of graphics or titling, while a program display or a recording device such as a VTR is connected to PROG OUT A or PROG OUT B. The program channels do not display any operator prompt messages.

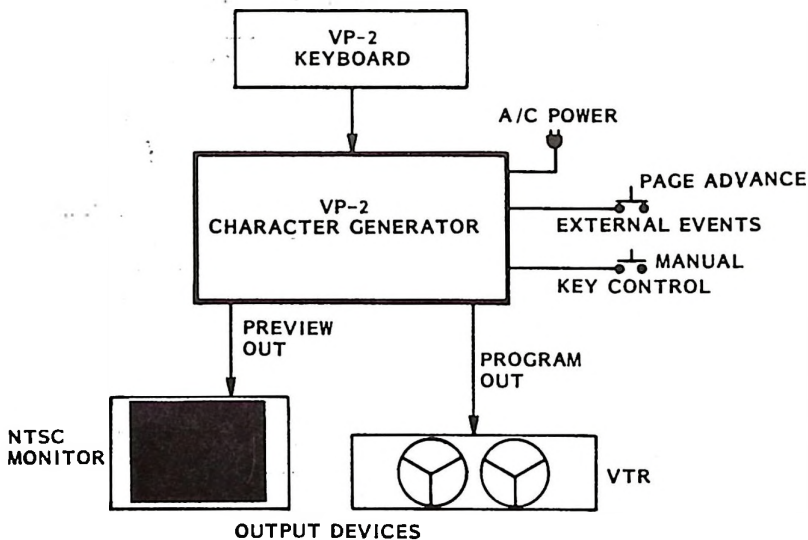


Figure 2-2. Stand-Alone System Configuration

2.5.2 DOWNSTREAM SYSTEM CONFIGURATION

Figure 2-3 illustrates a downstream configuration. In this case the internal keyer circuit of the VP-2 system is used to overlay VP-2 graphics and titling into the operator's video program. Operator video is input at the VIDEO IN connector. Incoming video is passed through the VP-2 with a small fixed delay produced by the unit. The combined video signal output from the VP-2 (incoming program plus VP-2 graphics) is available at the PROG OUT A channel. The operator must use the external keyer switch to control the insertion of the VP-2 graphics into the user's video. The PREV OUT channel is used to view and edit the VP-2 display before combination with the incoming signal.

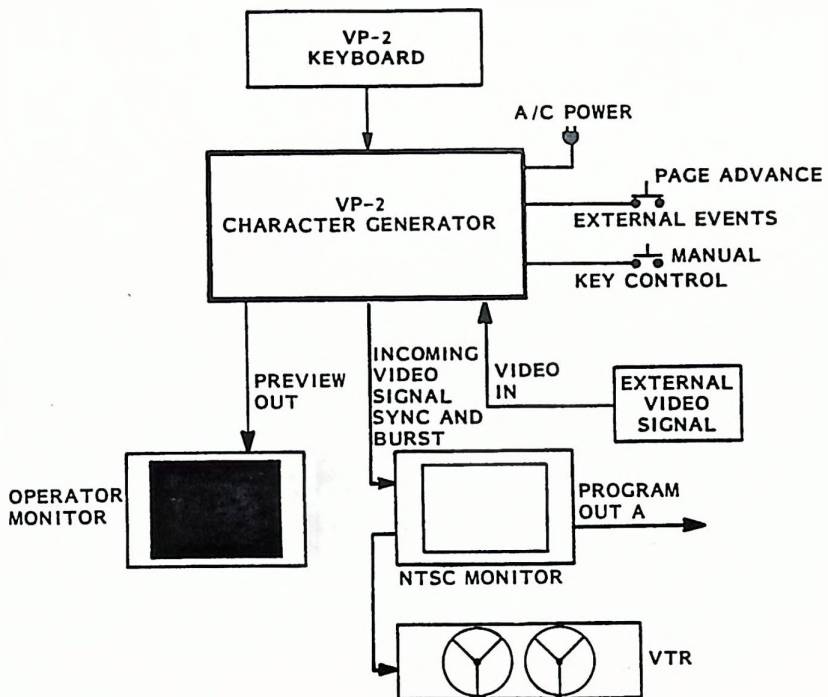


Figure 2-3. Downstream System Configuration

2.5.2.1 Genlock. As shown in Figure 2-3, in downstream operation the synchronizing portion of the incoming video signal is passed through the PROG OUT A connector. The internally generated sync and burst signals are not used. Built-in circuitry genlocks to (synchronizes with) composite video signals and must be genlocked to the incoming video signal for proper operation.

Once the VP-2 has been genlocked to the incoming signal, the VP-2 graphics hue (subcarrier phase) may require adjustment relative to the program video. This adjustment is described in paragraph 2.9.2.

2.5.2.2 Manual Video Insertion. Manual insertion or removal of the VP-2 signal during downstream operation is accomplished with an externally connected keyer switch. This permits the VP-2 operator to view the incoming video signal without the VP-2 signal inserted. When the VP-2 message is complete, the operator can manually insert the message into the video line using the keyer switch. The first depression of the momentary action switch will insert the VP-2 message. The second depression of the switch will bypass the VP-2 message. The timing of this mix can be varied by adjustment of the Keyer Mix Rate control described in paragraph 2.9.4.

2.5.3 UPSTREAM SYSTEM CONFIGURATION

As shown in Figure 2-4, in upstream operation the VP-2 is used to provide a video signal to the input of a video production switcher. The VP-2 system is genlocked to a master reference source via the VIDEO IN connector on the rear panel of the VP-2.

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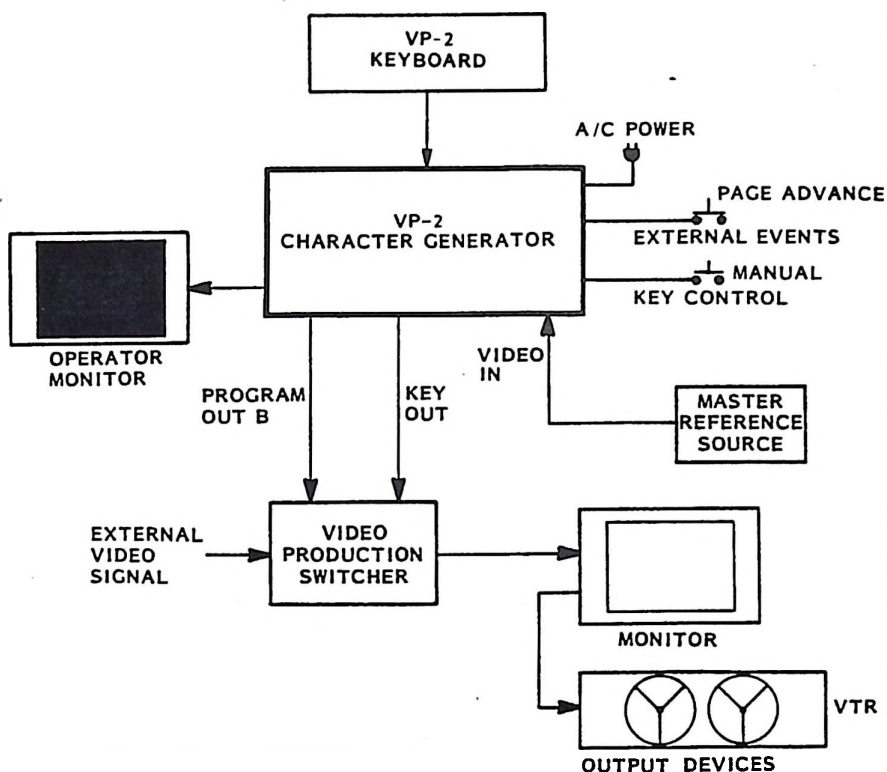


Figure 2-4. Upstream System Configuration

For all upstream applications, the VP-2 PROG OUT B channel should be connected as an input video source to the switcher. The KEY OUT connector on the VP-2 rear panel should be connected to KEY IN on the switcher (Figure 2-4).

NOTE

The output from PROG B OUT passes the incoming video signal with a small fixed time delay.

The VP-2 signal should be genlocked to the switcher. A key timing adjustment may be made if necessary using the method described in paragraph 2.9.5.

When the VP-2 is properly configured for upstream operation, the operator may find it necessary to set the VP-2 color burst to be coincident with the interfacing video system. This adjustment is made using Coarse Phase jumper clips and the SC Fine Phase potentiometer on the font board.

2.6 INSTALLATION OF FONTS

The VP-2 is shipped with three fonts installed on the font board behind the front panel: a digitized 18-line Helvetica medium, a 30-line Helvetica bold, and a 58-line graphic symbol font. The unit has the capacity to house and display characters from six fonts.

If the VP-2 is ordered from the factory with the Multifont Option installed, the three standard fonts that come with the system are a Helvetica medium multifont with seven sizes (12, 18, 24, 30, 36, 42, and 48 scanlines), a Helvetica bold with six sizes (18, 24, 30, 36, 42, and 48 scanlines), and a graphics font with line segments and symbols in 44 scanlines and 58 scanlines.

As shown in Figure 2-5, the font board has six zero-insertion force sockets at locations F1 through F6. These sockets are designed for easy installation of fonts and also aid in preventing accidental bending of font pins during installation.

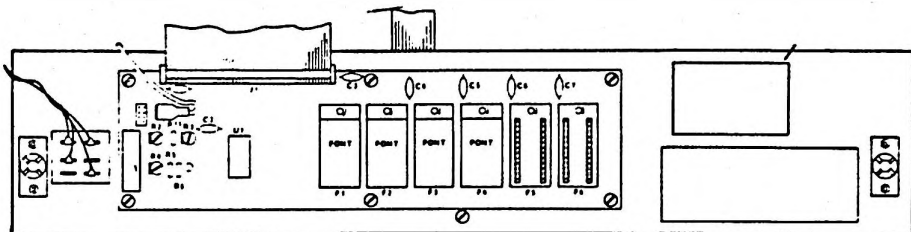


Figure 2-5. Location on Font Chip Sockets on Font Board

To change or add fonts to the VP-2 use the following procedure:

1. If the system is powered up press the power switch on the front panel to turn power off. The switch indicator lamp will be extinguished.

CAUTION

Removing or inserting a font with power on will destroy the font and cause the VP-2 to fail. Also, avoid damaging fonts through accidental static discharge. When fonts are not in use, store them on an anti-static protective padding.

2. Open the front panel by turning the knurled locking knob on the upper center of the panel counterclockwise, and swing the front panel down so the fonts are accessible (Figure 2-5).
3. Refer to Figure 2-7. Using a small slot-head screwdriver turn the cam counterclockwise to the "O" (open) position; then remove or install a font. Figure 2-6 is a side view of a font chip installed in its socket.

4. Install font by placing the font squarely in the socket. The key tab permits installation in only one direction. But the pins must be lined up carefully to prevent damage.
5. Seat font securely in socket and then lock in place by turning screwdriver cam clockwise to "C" (Closed) position.

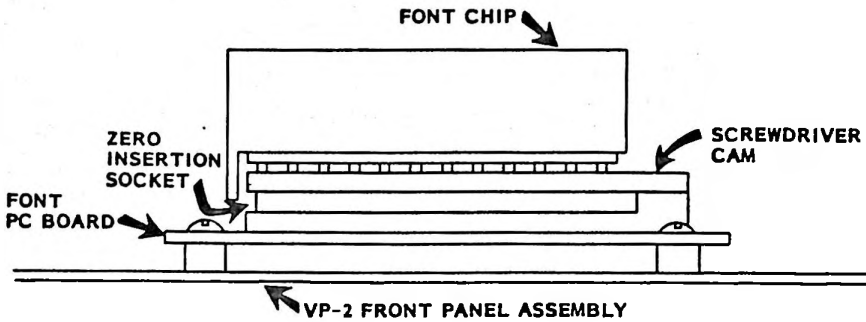


Figure 2-6. Font Chip Mounted In Zero Insertion Force Font Socket

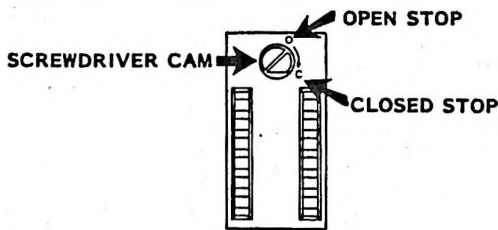


Figure 2-7. Zero Insertion Force Socket

NOTE

If a particular font does not work during the power-up diagnostic, the font may require reseating in the socket. Power down the unit. Open the socket, remove the font, and then open and close the socket several times to remove any oxidation or corrosion build-up on the pins. Replace font. Then power up the system.

Fonts that only display a logo or special character will not appear in the diagnostic and must be verified in graphic displays.

2.7 POWER-UP DIAGNOSTIC

When power is applied to the VP-2, the system will initially go through a self-test cycle of about 15 seconds. After this time the screen will be blue, and then the available fonts will be displayed over multiple color bars. (If the screen turns red and remains that way, the system requires service.) The background then turns to solid colors and cycles through the six primary colors, still displaying the fonts. In addition two prompts appear at the bottom of the screen that read:

HIT CUE KEY TO REPEAT PATTERN

HIT ANY OTHER KEY TO GO TO MAIN MENU

If CUE key is pressed, the color rotation of primary colors as background will continue, and the prompts at the bottom of the screen will read:

HIT CUE KEY TO GO TO NEXT PATTERN

TO GO TO MAIN MENU: HIT CUE KEY, AND THEN ANY OTHER KEY

If the diagnostic continues without a CUE key interrupt after the primary colors have each been displayed once, the color display proceeds to a luminance level test. This enables the operator to make sure that all eight levels of each color are available. The screen prompts now read:

HIT CUE KEY TO REPEAT PATTERN

HIT ANY OTHER KEY TO GO TO MAIN MENU

The bars then step down in intensity until they are all black. Then they increase in intensity to full color. This allows the operator to make sure all eight levels of color are present. To continue fading in and out, press the cue key. The prompts will now read:

HIT CUE KEY TO GO TO NEXT PATTERN

TO GO TO MAIN MENU HIT CUE KEY AND THEN ANY OTHER KEY

If the CUE key is not pressed, after pausing the stripes will go into a random display of color stripes. The prompt on the bottom of the screen will read:

HIT ANY KEY TO GO TO MAIN MENU

2.8 INITIAL DEFAULT PARAMETERS

After the VP-2 power-up diagnostics and color display are complete, the system is set to an initial group of values called Default Parameters; i.e., background color, font, line space, etc. (Table 2-1). These parameters can be changed at any time by the operator during composition. These parameters are set at each power-up of the VP-2.

NOTE

The initial Default Parameters are never displayed on screen.

Table 2-1

VP-2 Default Parameters

Background Color	Black																
Character Color	White																
Font Selection	Font 1*																
Character Space	6 Pixels																
Line Space	0 Scan Lines																
Top Margin	Scan Line 50 (PAL Setting 100)																
Bottom Margin	Scan Line 432 (PAL Setting 482)																
Left Margin	Pixel 125 (PAL Setting 125)																
Right Margin	Pixel 1385 (PAL Setting 1329)																
Italics	Off																
Edge Type	Off																
Edge Color	Black																
Key Color	Inactive																
Palette Selections	<table> <tr> <td>0 = Black</td><td>8 = Black</td></tr> <tr> <td>1 = Blue</td><td>9 = Dark Blue</td></tr> <tr> <td>2 = Green</td><td>10 = Dark Green</td></tr> <tr> <td>3 = Cyan</td><td>11 = Dark Gray</td></tr> <tr> <td>4 = Red</td><td>12 = Dark Red</td></tr> <tr> <td>5 = Magenta</td><td>13 = Dark Magenta</td></tr> <tr> <td>6 = Yellow</td><td>14 = Dark Yellow</td></tr> <tr> <td>7 = White</td><td>15 = Gray</td></tr> </table>	0 = Black	8 = Black	1 = Blue	9 = Dark Blue	2 = Green	10 = Dark Green	3 = Cyan	11 = Dark Gray	4 = Red	12 = Dark Red	5 = Magenta	13 = Dark Magenta	6 = Yellow	14 = Dark Yellow	7 = White	15 = Gray
0 = Black	8 = Black																
1 = Blue	9 = Dark Blue																
2 = Green	10 = Dark Green																
3 = Cyan	11 = Dark Gray																
4 = Red	12 = Dark Red																
5 = Magenta	13 = Dark Magenta																
6 = Yellow	14 = Dark Yellow																
7 = White	15 = Gray																

* In Multifont units, the Font Size defaults to size 1.

2.9 INITIAL ADJUSTMENTS

Certain parameters may be adjusted to ensure the highest quality display. The following paragraphs provide procedures for the adjustment of sync phase, color phase, horizontal phase, and keyer mix rate.

2.9.1 COLOR BURST PHASE (HUE)

If the hue of the VP-2 graphics does not appear to be correct when inserting over an incoming video signal, it may be corrected by adjustment of SC FINE PHASE potentiometer R2 on the Font board.

WARNING

R2 MUST BE ADJUSTED WITH THE FRONT PANEL OPEN AND THE POWER ON. AVOID CONTACT WITH INTERIOR COMPONENTS OTHER THAN R2 TO ELIMINATE THE POSSIBILITY OF ELECTRIC SHOCK.

Adjust as follows:

1. Open front panel of VP-2 and locate R2 on front board (Figure 2-8).
2. Using a small screwdriver, slowly adjust R2 until the color phase (hue) of the inserted VP-2 graphic is the same as the incoming signal. If there is insufficient adjustment refer to paragraph 2.9.2.
3. If the adjustment is adequate, close the front panel and secure it with the locking knob.

2.9.2 COARSE COLOR PHASE (HUE)

If there is insufficient adjustment in the SC FINE PHASE potentiometer a different adjustment can be selected by changing the coarse color phase jumper.

1. Refer to Figure 2-8 and locate the four pairs of raised jumper pins, labeled 270, 180, 90, and 0 degrees.
2. Increase the range by moving the jumper to next higher value set of jumper pins.
3. Readjust SC FINE PHASE in accordance with paragraph 2.9.1.

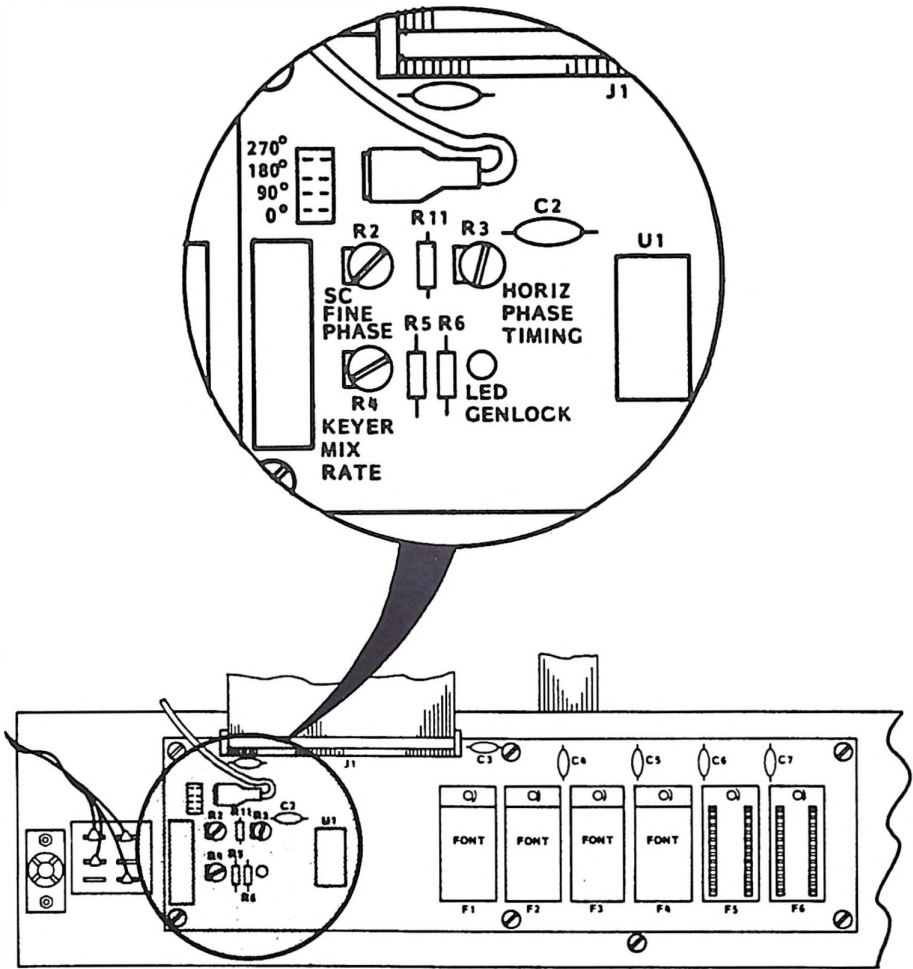


Figure 2-8. Location of Potentiometers and Jumper Connector on Font Board

2.9.3 HORIZONTAL PHASE

Potentiometer R3, (HORIZ PHASE TIMING) is used to adjust the horizontal phase timing to ensure horizontal sync with incoming video signal. Locate R3 on the font board (Figure 2-8) and turn clockwise or counterclockwise to correct an out-of-phase video condition.

2.9.4 KEYER MIX RATE

Potentiometer R4 (KEYER MIX RATE) on the font board is used to adjust the rate at which VP-2 video is mixed into the incoming video when the keyer is activated. The mix rate can be adjusted from 0 to 3 seconds, which provides for a "soft" key, or fade effect. Locate R4 on Figure 2-8. Locate R4 on board and turn clockwise to decrease delay, or counterclockwise to increase delay. This adjustment is required only in downstream mode.

2.9.5 KEY TIMING ADJUST

The user may adjust the timing of the VP-2 key output in relation to Program B Out when using the unit in conjunction with an external keyer. The unit is shipped with this adjustment set at the "test" position (key timing centered). The key timing may be adjusted by moving the key adjust jumper link on the Sync Gen board, near U4. The key timing may be adjusted in 35 nanosecond increments as needed.

2.10 EXTERNAL EVENTS SWITCHES

To enable the manual insert and manual page advance functions, you must connect a single-pole/single throw (SPST) switch across terminals 3 and 4, and another switch across terminals 1 and 2 of the EXTERNAL EVENTS connector on the rear panel. Locate the DB25 pin connector supplied with your VP-2. Connect two SPST switches to the connector as shown in Figure 2-9. Then plug connector into the EXTERNAL EVENTS connector.

NOTE

Due to the variety of customer installations, the switches used for these applications are not supplied with the VP-2.

2.10.1 MANUAL INSERT SWITCH

The Manual Insert function allows the operator to insert VP-2 graphics into an external video signal during "downstream" operation. The SPST switch connects pins 3 and 4 of the EXTERNAL EVENTS connector. When this switch is closed, the VP-2 internal keyer will be triggered, inserting VP-2 graphics into the incoming video signal.

When the manual insert switch is triggered again, the operator's external video signal will be combined with the VP-2 graphics signal and output to the display through the PROG A OUT channel.

2.10.2 MANUAL PAGE ADVANCE

The Manual Page Advance function allows the operator to advance pages of text from an auto display file at any rate. The SPST momentary switch connects pins 1 and 2 and triggers these page advances. Each time the switch is triggered, the VP-2 will display the next page of text in the auto display file.

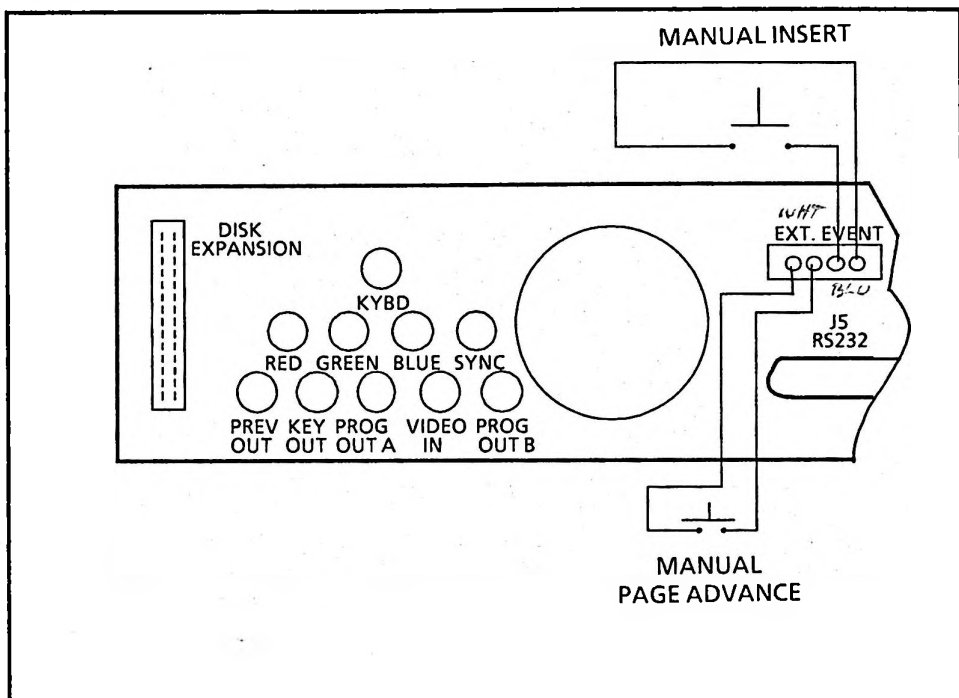


Figure 2-9. External Events Switches

SECTION 3

GENERAL OPERATION

3.1 INTRODUCTION

This section introduces the basic menus and their operation. You will be guided through the entry and exit procedures for the EDIT DISPLAY-PAGE, and then will be provided the keystroke formula for each function. This method will be followed throughout to simplify the description.

NOTE

In some versions of VP-2 software, the terms "Disk Drive" and "Device" are interchangeable.

3.2 GETTING STARTED

To start operation press the power switch on the front panel, and the diagnostic will start. Follow the prompts to enter the Main Menu (Figure 3-1). This Main Menu is the central VP-2 operating menu, and is also the first menu you will use.

Next, insert a floppy disk into the disk drive. The disk must be inserted with the label facing up and the arrow pointing toward the disk drive.

CAUTION

Incorrect insertion of the disk could damage the disk drive and/or the floppy disk.

The floppy disk is used exclusively for recording displays. You can not load fonts or programs from the floppy into the VP-2. Further, we recommend that you don't fill any floppy disk more than half way, and that you always make a back-up disk.

Main Menu - VP-2 4:00

1: EDIT DISPLAY-PAGE

2: EDIT AUTO-DISPLAY

3: EDIT PALETTE-ANIMATION

4: DISPLAY

5: COPY

6: RENAME

7: DELETE

PG

AD

PA

PG/AD/PA

8: DIRECTORY

9: INITIALIZE DISK

10: DUPLICATE DISK

SELECTION : 4

EXEC CNCL BACKSPACE DEL → ↓ ← ↑

Figure 3-1. VP-2 Main Menu

3.3 INITIALIZING DISK FUNCTION

Before starting any operations, if the disk is a new disk it should be initialized. This function has a dual purpose since you can use the same function to "erase" a disk that no longer contains useful information. However, the function cannot be used to eliminate individual files since all information is removed from the disk. Refer to paragraph 5.8 for the Delete File functions.

3.3.1 INITIALIZE DISK OPERATION

The first step in initialization is to insert the disk into the disk drive. A pronounced click is heard and the disk eject button pops out when the disk is correctly inserted into the disk drive. If the disk eject button does not pop out the disk is not seated correctly; reinstall.

Next select INITIALIZE DISK from the Main Menu (9) and then press the EXEC key. The first Initialization Menu (Figure 3-2) will appear on the monitor.

INITIALIZE DISK

CAUTION!!!

FUNCTION WILL ERASE
ENTIRE DISK

KEY -CANCEL- TO QUIT.

DISK NAME: **Assign Disk Name**
DISK DRIVE (1-4): 1

EXEC CNCL BACKSPACE DEL

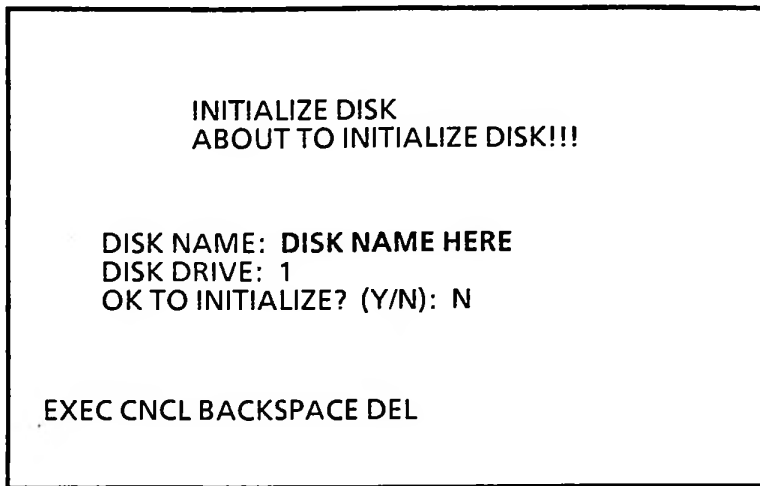
Figure 3-2. First Initialize Menu

Enter a name, not to exceed 13 characters, next to DISK NAME:, then press EXEC. The system will respond with the second Initialization Menu (Figure 3-3).

To initialize the disk press the Y key followed by the EXEC key. The system will begin initializing the disk. When the initialization is completed the system will display: **INITIALIZING DISK/DISK INITIALIZED** then return to the Main Menu.

3.3.2 KEYSTROKE FORMULA

1. 9 + EXEC = First Initialization Menu
2. Name of Disk + EXEC = Second Initialization Menu
3. Y + EXEC = Initialize Disk



```
INITIALIZE DISK
ABOUT TO INITIALIZE DISK!!!

DISK NAME: DISK NAME HERE
DISK DRIVE: 1
OK TO INITIALIZE? (Y/N): N

EXEC CNCL BACKSPACE DEL
```

Figure 3-3. Second Initialization Menu

3.4 MENU OPERATIONS

To operate the VP-2 effectively you must know how to respond to prompts and to move the cursor in the menus. The cursor direction keys (→ ↓ ← ↑) located on the right side of the keyboard, control cursor movement in the direction marked by arrow on each key. Once the cursor is positioned on your selection, respond to the prompts with the keyboard. In many cases the response will simply be a numerical selection; in others a name must be given to a display or disk. Pressing the EXEC key completes the selection.

There are two basic menus used to enter and exit the VP-2 functions; the CREATE/EDIT menus, and the EXIT menu. The CREATE/EDIT menus (selections 1, 2, and 3) ask you to select a name for the page being created (Figure 3-4). If editing is to be done, enter the original name of the page. Press EXEC to proceed to that page. You can also return to the main menu by pressing the CNCL key.

When you finish composition, the EXIT menu (Figure 3-5) allows you to return to the Main menu and asks you to save or abort the present display. If you abort a display, all constructions are lost.

DISPLAY PAGE
CREATE/EDIT

NAME: .

DEVICE : 1

EXEC CNCL BACKSPACE DEL

Figure 3-4. Create/Edit Menu

EXIT MENU

1: SAVE
2: ABORT
3: RETURN TO EDITOR

ACTION?

NAME: XXX
DRIVE: 1

EXEC CNCL BACKSPACE DEL

Figure 3-5. Exit Menu

3.5 EDIT DISPLAY

3.5.1 OPERATION

The following outlines entry to and exit from the EDIT-DISPLAY PAGE function. When viewing the Main menu press the key corresponding to EDIT-DISPLAY PAGE, 1. Your selection will appear next to the selection prompt. Then press EXEC.

Type in a page name next to the NAME: prompt. Keep all display names as simple as possible, and remember that a page name should not exceed ten characters.

Notice that to the right of the NAME prompt is a dot. If an existing page is edited, the original page is saved by the system and the letters BAK are added to its title after the period. Refer to paragraph 5.9 for further details.

The DEVICE: prompt located directly below the NAME refers to the drive containing your disk. The default (pre-selected) drive is drive 1. If your disk is in another drive, position the cursor next to the prompt and enter the correct drive number.

After completing the entries, press EXEC. The system will respond with a blank page ready for composition. A complete detailed description of operation within the page create mode is given in Section 6, that follows.

3.5.2 KEYSTROKE FORMULA

The keystroke formula appears at the end of each operating procedure and can be a convenient reference during operation.

Entrance Procedure

1. Key 1 + EXEC = Edit Display Page menu.
2. Enter NAME + DRIVE number = EXEC = Edit Display Page

Exit Procedure

1. EXEC = Exit Menu
2. Key 1 (save) or 2 (abort) or 3 (Return to Editor) + EXEC = Main Menu.

SECTION 4

PAGE CONSTRUCTION

4.1 INTRODUCTION

The primary function of a character generator is page construction and editing. Once a page or pages are recorded they can be displayed separately, become a part of an auto display, etc. For this reason we will treat all the elements of page construction first. Then in Section 5 we'll cover all the many page manipulations.

4.2 GETTING STARTED

VP-2 operation is very simple when you understand the system. One of the keys, however, is understanding the page prompts. These opening paragraphs will describe the basic page-construct guides and get you started in the EDIT-DISPLAY MODE.

4.2.1 PROMPT LINE

The prompt line (Figure 4-1) appears at the bottom of a display page. The prompt line provides you with a lot of information about what the VP-2 is doing.

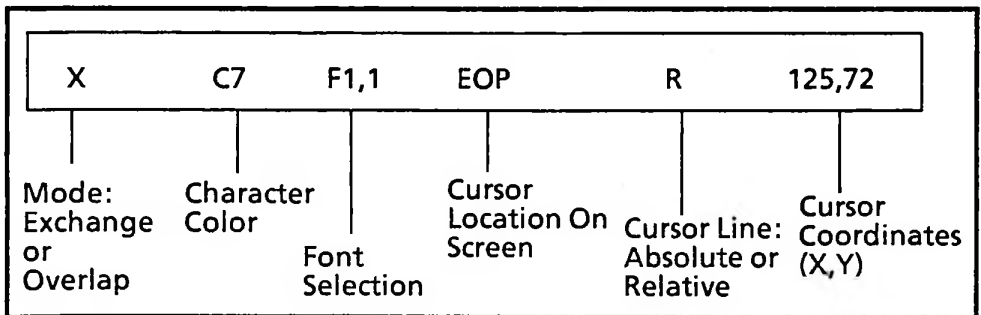


Figure 4-1. Prompt Line

The first entry on the prompt line (X) states the page mode. If an X occupies this position, you are operating in the Exchange Mode. If an O is in this position, the Overlap Mode is active.

The Exchange Mode is the standard operating mode of the VP-2. The Exchange Mode allows you to replace characters during standard editing procedures. The Overlap Mode, activated by pressing the OVL key, allows you to overlap new text on existing text. If you are in Insert Mode an "I" will appear in front of the "X" or "O".

The second entry (C7) on the prompt line states the character color currently selected. The third entry on the prompt (F1,1) indicates the number of the selected font. If the VP Multifont option has been installed, the second number represents the font size.

The fourth entry on the prompt line provides the cursor screen location. One of two abbreviations appear in this position, EOL and EOP. EOL represents the end-of-line mark that appears at the end of each line of text. EOP represents the end-of-page mark. When composing a display it is always best to type from the EOP forward. The VP-2 will recreate characters more quickly at the end of the page.

The fifth entry on the prompt line (R) reports the status of the line the cursor occupies. An R in this position signifies that the line is relative (will move as surrounding text is edited). An A in this location means the line is absolute (is anchored in the present position).

The final entry on the prompt line (125,72) provides the x (horizontal) and y (vertical) coordinates of the cursor. This is the upper left hand corner of the safe title area.

4.2.2 CURSOR FUNCTION AND MOVEMENT

When you enter EDIT DISPLAY - PAGE the cursor is located at the upper left hand corner of the screen. As you type, the cursor moves from left to right across the screen. The cursor serves as a marker while typing or using the edit functions.

In the edit functions, the cursor is used to mark inserts and to select characters for movement or deletion. In some cases, such as the move

and delete functions, a second cursor appears on-screen. The additional cursor allows you to "mark-off" sections of text for editing.

The cursor can be moved around the page by using the SHIFT key in conjunction with the cursor direction keys (→ ↓ ← ↑).

When the SHIFT key and the ← key are pressed in unison, the cursor moves in 5 pixel increments toward the left margin. When the SHIFT key is pressed along with the → key, the cursor moves in 5 pixel increments toward the right margin. A warning signal sounds and an error signal is displayed if the cursor begins to overlap an existing character. No warning is issued if the Overlap function is activated.

When the SHIFT key is pressed together with the ↓ key, the cursor moves toward the bottom of the screen in single-scanline increments. This affects line height; therefore, the position of subsequently typed characters is affected.

When the SHIFT key and the ↑ key are pressed simultaneously, the cursor moves toward the top of the screen until it reaches the bottom portion of the previous line. An error signal is issued if the cursor begins to overlap a previously typed character. (No error signal is issued if the "Overlap" function is activated.)

The final method of moving the cursor is with the BACK SPACE key. This key will allow you to move from right to left on the edit page. It also deletes any characters in the space. We recommend not using the BACK SPACE to delete since it is very slow. Use the DELETE function instead. It is much quicker.

4.2.3 PALETTE OPERATION

The VP-2 Palette consists of 512 colors. Each color is composed of varying amounts of red, green and blue. Any 16 colors can be stored on-line at any time, and the on-line colors can be changed by adjusting the RGB values of the 16 colors shown in the Palette Menu.

The RGB value of a color is a three digit number, reflecting the amount of red, green and blue in the color. Each digit of the number can be assigned a value from 0 to 7 inclusive. The higher the number the greater the intensity of the color. In video, the color white has the

maximum amount of all three component colors; therefore it's RGB value is 777. Black, being the lack of all three colors, has an RGB value of 000. Table 4-1 lists 8 basic colors and their RGB values.

Table 4-1. RGB Values

RGB Value	Color
000	Black
007	Blue
070	Green
077	Cyan
700	Red
707	Magenta
770	Yellow
777	White

The Palette Select menu can only be entered from the Edit Display Page mode. Therefore, you must first enter that mode then press the PALET key to enter the Palette Select Menu. The VP-2 will respond with Figure 4-2. The Palette Select Menu is composed of 16 color positions that can be adjusted to create any desired sixteen colors.

The column of numbers on the left side of the screen is a listing of the 16 color locations. Each of these 16 locations has a reference number ranging from 0 to 15. These are called the color location numbers. The column on the right side of the screen lists the RGB values for the sixteen color locations. The color the RGB value creates appears in the corresponding color bar.

To change any on-line color, change the RGB value for the color and the color line will change accordingly. To become familiar with the palette, randomly change the numbers in the palette and watch the color line change. The numbers 8 and 9 are out of range and cannot be used. If you accidentally go out of the number range press the CNCL key. The

VP-2 will recognize the MENU key as a 0. Press the EXEC key to register the new palette colors and return to the edit page. The palette created will remain the same for all pages created there after unless you enter the Palette and change them.

Colors	RGB Values
COLOR 0	000
COLOR 1	007
COLOR 2	070
COLOR 3	077
COLOR 4	700
COLOR 5	707
COLOR 6	770
COLOR 7	777
COLOR 8	000
COLOR 9	003
COLOR 10	030
COLOR 11	033
COLOR 12	300
COLOR 13	303
COLOR 14	330
COLOR 15	333

Figure 4-2. Palette Select Menu

4.2.4 BACKGROUND FUNCTION

The Background Function enables you to create single or multiple-color backgrounds, with background colors selected from the 16 on-line palette colors. The copy and fill functions are two unique features of the background function. The copy function enables you to copy a pattern from one section of the background and recreate it at another section. The fill function allows you to fill the background with a continuous repeating pattern.

To enter the Background Mode, press the BKGND key. The system will respond by temporarily erasing any existing text. A background cursor and the LINE: 50 COLOR = 00 PAINTING prompt will appear on the edit monitor. Line 50 is selected because it is the top of the "Safe Title Area".

Background colors are selected by entering the color location numbers (0-15) through the keyboard. All single-digit color entries must be preceded by a 0. Several keys perform important functions in the background mode:

The HOME key moves the cursor to the first background line (located off-screen).

The cursor up (↑) and cursor down (↓) keys move the background cursor and "paint" the background.

The PAGE key moves the cursor to the last line of the background.

The MOVE key allows you to toggle between the moving and painting modes. The moving mode allows you to move the background cursor without changing the background color. The painting mode allows you to change the existing background color to the assigned background color.

To create a background:

1. Press BKGND key.
2. Press HOME key to move the cursor to the first background line.
3. Enter a palette color location number (0-15) through the keyboard.

To create a solid background:

4. Press the PAGE key to move the cursor to the bottom of the background and change the background to the selected color. Press EXEC to return to edit page.

To create a striped background, you first use the cursor as a brush to create a stripe pattern; i.e. red - white - blue. Each time you press the down key the cursor will move down two scanlines.

To create a striped pattern:

5. Press BKGND key.
6. Press HOME key to move cursor to first background line.
7. Select the first stripe color (red) by pressing the number key for that color (4). Remember, single number colors must be preceded by a zero.
8. Then press the down (↓) arrow about 10 times and notice the narrow red stripe. If you wish a wider stripe, press the down arrow several more times. The background color does not appear on-screen until the cursor has reached line 10.
9. Select second color (white) by pressing 7 key.
10. Now press down arrow several times for white stripe.
11. Select third color by pressing number key for blue (1). Create blue stripe.

You now have a red - white - blue pattern that will be repeated on the whole page by following the copy pattern procedure that follows. You can repeat the pattern once, or fill the whole page.

To copy a selected pattern:

1. Create a pattern, i.e. multicolor stripes.
2. Press the C key. The system will respond with the COPY WHAT? - EXEC - WHEN READY prompt.
3. Use the cursor direction keys to mark the length of the background pattern to be copied. Press EXEC. The system will respond with the TO WHERE? - EXEC - TO COMPLETE prompt.
4. Use the cursor direction keys to position the cursor at the location for the new copy. Press EXEC to create the copy in the selected area. Press EXEC to return to edit page.

To fill a page with a repeating pattern:

5. Press the F key. The system will respond with the KEY - EXEC - TO FILL BACKGROUND prompt.
6. Press the EXEC key. The system will fill the screen with the pattern between the top of the page and the cursor.

4.3 ATTRIBUTES

The individual attributes (properties) of VP-2 characters can be changed using specialized edit menus. Through these menus you can change the attributes of characters already on a page (Character Attributes Mode), or establish all the attributes of characters yet to be typed (Cursor Attributes Mode). In either case these modes save keystrokes and time while providing you with a wide choice of character colors and styles. Each of the character attributes will be discussed separately in the paragraphs that follow. Please note, however, that the attributes functions can only be used in Edit/Display Mode.

To select an attribute menu press the MENU key. The display will offer five functions, included in which are Character and Cursor Attributes.

4.3.1 CHARACTER ATTRIBUTES

The Character Attributes Menu allows you to change the qualities of existing characters. The Character Attributes Menu changes the characteristics of all characters on the same line as the cursor.

The first step in changing attributes is to position the cursor over the string of characters you wish to edit. To enter the Character Attributes Menu from the Edit Function Menu, press the 3 key followed by EXEC, and the system will respond with Figure 4-3. Remember, the Character Attributes Menu will effect only previously typed characters. Set each attribute to your specification and press the EXEC key. The display will return to the edit page.

CHARACTER		
ATTRIBUTES CHANGE		
FONT	1*	
CHAR COLOR	7	
EDGE TYPE	B	
EDGE COLOR	0	
EDGE X	6	SLOPE/PIXS
EDGE Y	6	SCANLINES
ITALIC	1	UNITS
INTERCHAR SPACE	6	PIXELS
EXEC CNCL BACKSPACE DEL		

*A "SIZE" prompt appears for units with Multifont capabilities.
Figure 4-3. Character Attributes Menu

4.3.2 CURSOR ATTRIBUTES

The Cursor Attributes Menu and the Character Attributes Menu appear almost identical. They also serve very similar purposes. Each allows you to make changes to characters. The major difference between the function of the two menus is:

The Cursor Attributes Menu effects characters that will be typed.

The Character Attributes Menu effects previously typed characters.

To enter the Cursor Attributes Menu from the Edit Functions Menu press the 4 key followed by the EXEC key. The system will respond with Figure 4-4.

CURSOR		
ATTRIBUTES CHANGE		
FONT	1	
CHAR COLOR	7	
EDGE TYPE	B	
EDGE COLOR	0	
EDGE X	6	SLOPE/PIXS
EDGE Y	6	SCAN LINES
ITALIC	1	UNITS
INTERCHAR SPACE	6	PIXELS
EXEC CNCL BACKSPACE DEL		

Figure 4-4. Cursor Attributes Menu

Make character changes next to the appropriate prompts. Then press the EXEC key. All subsequently typed characters will reflect the new character properties.

4.3.3 FONT SELECTION

A font is the style of character the VP-2 uses as you type. The VP-2 Font Board can accommodate up to six Font Chips. Three Font chips are shipped with each VP-2; a digitized 18-line Helvetica Medium, a 30-line Helvetica bold and a 58 line graphic symbol font. Fonts are sized according to the number of vertical scanlines they occupy. The higher the number of scanlines, the larger the characters. For example the 30-line Helvetica medium characters are larger than the 18-line Helvetica medium characters.

If your VP-2 includes the Grab/Multifont Option, it expands the applications of the VP-2 with two unique features. VP Multifont provides the operator with 5 to 7 fonts on each font chip (instead of 6) from which to choose. If your unit includes this option, please refer to Appendix B for operating instructions. VP Grab enables the operator to combine the high resolution VP-2 text with the multi-faceted graphics of the CHYRON Chameleon paint system. It also is described in detail in Appendix B.

To change fonts during page construction:

1. Press the FONT key located on the left side of the keyboard. The system will respond with the FONT: prompt at the bottom of the edit page.
2. Enter a number between 1 and 6. That number appears next to the FONT: prompt. If you have the Multifont Option enter a number from one to six next to size. SIZE prompt is located below FONT. Move cursor down with down arrow.
3. Press EXEC to return to the edit page and enable the new font.

If you select an illegal font number an error message NUMBER OUT OF RANGE appears. Press the CNCL key to recover and retry the operation.

4.3.4 CHARACTER COLOR

You can assign any of the 16 on-line colors to the VP-2 characters. To select a character color from the palette:

1. Press the CHAR COLOR key on the left side of the keyboard. The system will display the CHAR COLOR: prompt.
2. Enter the number (0-15) of the color you wish to assign to the characters. This number will appear next to the CHAR COLOR: prompt.
3. Press the EXEC key to return to the edit page with the new character color.

4.3.5 EDGE TYPE

Characters can be displayed with one of three edge types, Single, Continuous or Bordered or with no edge at all. The No Edge setting, displayed code 0, removes any edge from the characters.

The Single edge style, display code A, displays an exact reproduction of the character "behind" the original. You are able to set the location of the edge through X (vertical) and Y (horizontal) axis values.

The Continuous edge style, display code B, displays a shadow from the original character to a location set through the X and Y axis values.

The Bordered edge style, display code C, displays a border surrounding the original character. The X and Y values determine the vertical and horizontal edge size.

To create a character edge:

1. Press the EDGE TYPE key at the left side of the keyboard. The system will display the Edge Type Menu (Figure 4-5).
2. Enter desired edge type letter next to the EDGE TYPE: prompt.
3. Using the ↓ direction key, precede to the X VALUE: prompt. Enter a number between -199 and 199.
4. Move the cursor to the Y VALUE: prompt. Enter a value from 0 through 24 through the keyboard. Don't use a negative number for this coordinate.
5. Press the EXEC key to return to the Edit Page. The new edge type will appear on all subsequently typed characters.

NOTE

We recommend that you experiment with the various edge types and their X, Y values to gain a good familiarity. Very unusual effects can be created.

EDGE TYPE B:	O = NO EDGE A = SINGLE B = CONTINUOUS C = BORDERED
X VALUE : 2	
Y VALUE: 4	

Figure 4-5. Edge Type Menu

4.3.6 EDGE COLOR

The edge color function allows you to assign a palette color to a character edge.

To select a color for character edges:

1. Press the EDGE COLOR key. The system will respond with the EDGE COLOR: prompt. Enter the color location number for the edge color.
2. Press the EXEC. All subsequent edges will be in the newly selected color.

4.3.7 ITALICS

The VP-2 allows you to apply both forward (to the right) and reverse (to the left) italics to any character. The slope of the italic can be increased or decreased by selecting a number from 1 to 9 (inclusive) for forward italics, or -9 to -1 (inclusive) for reverse italics.

To create italicized characters:

1. Press the ITALIC key on the right side of the keyboard. The system will respond with the ITALIC: (-9 to 9) prompt.
2. Enter a number from -9 to 9 (inclusive). The selected number will appear next to the ITALIC: prompt.
3. Press EXEC to return to the edit page. The new italic will be applied to any new characters.

NOTE

Again we recommend that you experiment to learn the effect of the various numbers from -9 to +9.

4.3.8 ATTRIBUTE KEY

The Attribute key is used as a short cut for re-selecting colors and fonts from a character displayed on screen, instead of returning to the various attributes menus. To use the Attributes key:

Position the cursor over a previously typed character and press the ATTRB key. The font, edge, character color, edge color, italics and inter-character spacing attributes are set to reflect the attributes of the selected character. Any new characters typed will have all the characteristics of the selected character.

4.4 EDIT FUNCTIONS

The edit functions allow you to add, delete or move characters in existing displays.

The keys available to facilitate cursor movement are the HOME, the four cursor direction keys (→ ↓ ← ↑), WORD, LINE, BACKSPACE and PAGE.

The HOME key moves the cursor to the upper left-hand corner of the screen.

The cursor left (←) moves the cursor to the preceding character. If the cursor is over the first character on a line, it will move to the previous End Of Line mark. If the cursor is at the Home position, nothing will happen.

The cursor right key (→) moves the cursor to the next character (moving from left to right) on the line. If the cursor is at the end of the line it will proceed to the next line.

The cursor down key (↓) moves the cursor to a character approximately below the present location of the cursor. If the cursor is on the last line, nothing will happen.

The cursor up key (↑) moves the cursor to a character approximately above the present location of the cursor. If the cursor is on the first line, nothing will happen.

The WORD key moves the cursor to the first character of the first word to the right of the cursor. The VP-2 recognizes any string of non-space characters as a word.

The LINE key moves the cursor to the end of the line the cursor is currently on. If the cursor is at the end of a line, the cursor will move to the end of the next line.

The BACKSPACE key moves the cursor to the left and deletes the character to its left. Use this key for minor editing only.

The PAGE key moves the cursor to the end of the page.

4.4.1 MOVE FUNCTION

The move function enables you to move existing text to different locations on the page. You can move a single character, a word, a line or even a paragraph with the move function.

To move a character, or group of characters:

1. Use the cursor direction keys to position the cursor at the beginning of the segment to be moved.

2. Press the move key. The system will respond with the MOVE WHAT? prompt at the bottom of the page.
3. A second cursor will appear next to the original cursor. Position the second cursor at the end of the segment you want to move, using the WORD, LINE, PAGE or direction arrow keys.
4. Press the EXEC key. The system will respond with a TO WHERE? prompt.
5. Press the SHIFT key and one of the cursor direction keys to position the two cursors in the new location.
6. After positioning the two marking cursors in the new location, press the EXEC key. The VP-2 will rebuild the page to reflect the new character locations.

4.4.2 DELETE FUNCTION

The Delete function removes text from the edit page. To use the Delete function:

1. Position the cursor over the first character you wish to delete. Press the DELETE key. The system will respond with the DELETE WHAT? prompt. A second cursor will also appear next to the original cursor.
2. Position the second cursor over the final character you wish to delete, using the WORD, LINE, PAGE or arrow keys. Press the EXEC key. The system will now rebuild the page without the deleted text.
3. To correct one character, position cursor over character and type correct character.

NOTE

Only use this for simple changes since each change causes a Page Rebuild.

4.4.3 INSERT FUNCTION

The insert function is used to add or extend existing test. To insert text on an existing page:

1. Position the cursor over the character where the insert is to take place. New text will be inserted in front of this character.
2. Press the INSERT key at the right side of the keyboard. All text from the cursor forward will temporarily disappear.

Enter the text you wish to add to this page. Press the EXEC key. All added characters will appear as if they had originally appeared on the page.

4.4.4 OVERLAP FUNCTION

The Overlap function allows new text to be added to the page over existing text.

In the Overlap function, the cursor can be freely moved about the screen. To use the Overlap Mode:

1. Press OVLP key. The prompt line will reflect this change by inserting an "O" in place of the "X". Also, the LED indicator on the OVLP key will be illuminated.
2. Use the SHIFT key together with the cursor direction keys to position the cursor anywhere on the page, including over existing text. Type new characters over the existing characters.

To exit the Overlap mode, press the OVLP key a second time.

4.4.5 RIGHT JUSTIFY FUNCTION

The VP-2 performs two types of right hand justification; page justification to a right-hand margin and column justification to a tab stop.

Page justification adds space between characters and words to equalize the length of lines. Page justification will be executed on a line

that is 80% filled with text and will be visible only in the Display Page mode.

Column justification aligns text to the right side of a previously selected tab stop.

To set the page for right justification press the RIGHT JUST and PAGE keys sequentially. When viewed in the Display Mode, the page will be right justified. The justification is not displayed in the Edit mode.

To perform a column justification:

1. Position the cursor over the text you wish to justify.

NOTE

In order to right justify a column, the text must be preceded and followed by a tab set or an End Of Line Mark.

2. Press the RIGHT JUST and TAB keys simultaneously. The text beneath the cursor will be justified to the tab.

4.4.6 CENTERING

The VP-2 allows you to center text using the Center Menu (Figure 4-6).

1. Position the cursor over the line you wish to center. If you are centering the page, the location of the cursor does not matter.
2. Press the CENTER key, located at the right side of the keyboard. The system will respond as shown in Figure 4-6.

Press the key for the function you wish. After centering, the system will return to the edit page.

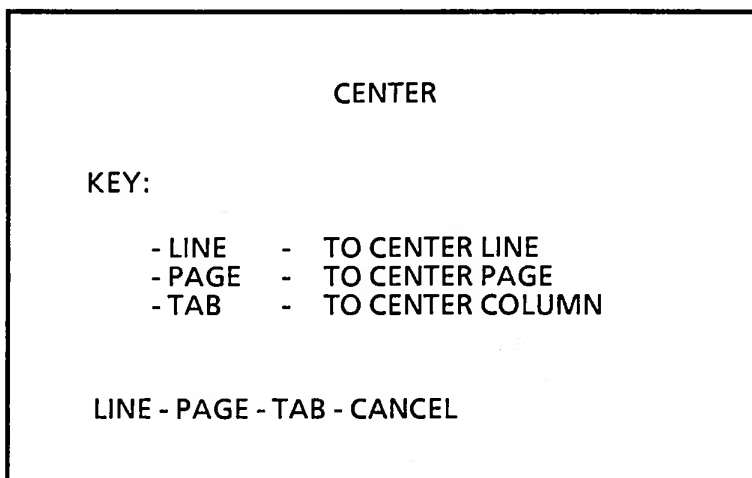


Figure 4-6. Center Menu

4.4.7 KEY COLOR FUNCTION

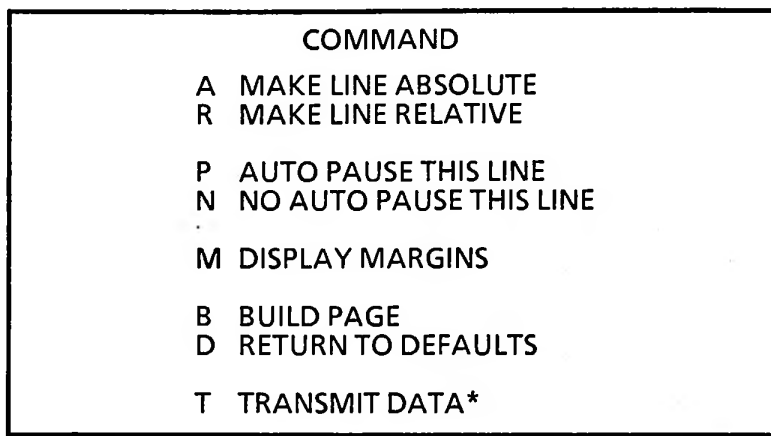
When the system is set-up in the upstream or downstream configurations, the Key Color Function allows you to make one color transparent.

To activate the Key Color Function:

1. Press the KEY COLOR key at the left side of the keyboard. The system will respond with the KEY COLOR: and KEY ENABLE: (Y/N) prompts.
2. Enter any palette color location number (0-15) next to the KEY COLOR: prompt. This color will appear on the edit monitor, but will be transparent in the Program channels. The default color is Ø.
3. Position the cursor at the KEY ENABLE: (Y/N) prompt and press the Y key and EXEC key. The selected color is now entered as the key color for your display.

4.4.8 COMMAND MENU

The command function controls seven functions that affect the appearance of your page. The Command Menu allows you to control the status of text lines, set Auto Pause Marks (which are used with the roll function), display margins, build pages or return to the defaults (original setting of page and character attributes). To enter the Command Menu, press the CMND key. The system will respond with Figure 4-7.



* appears only for units with Multifont Option

Figure 4-7. Command Menu

To activate any of these functions, press the key corresponding to the letter to the left of the function. The system will activate the function you have selected and return to the edit page.

MAKE LINE ABSOLUTE allows you to set a line of text in one position through all editing processes.

MAKE LINE RELATIVE allows you to reset an absolute line as a relative line. A relative line will move as text is manipulated about the page.

AUTO PAUSE THIS LINE allows you to specify the line on which a roll will automatically pause. The NO AUTO PAUSE deletes the auto pause mark from a line.

DISPLAY MARGINS allows you to view the margins that are set on the page at that time. Default margins are the safe title area.

BUILD PAGE lets you reset characters in relationship to each other and their edges. It is useful when using negative values in your edges (to cause a left shadow). This function will rearrange the page so the edges of one character do not overlap the body of the previous character.

RETURN TO DEFAULTS allows you to reset the system palette and all character and page properties to their original setting.

TRANSMIT DATA allows you to transmit information to the CHAMELEON for use with the VP-2 MULTIFONT GRAB. (Refer to paragraph B.2 for more detailed information.)

4.5 EDIT FUNCTIONS MENU

The Edit Functions Menu lists the five attributes menus and their reference numbers. Press the MENU key to enter the Edit Functions Menu (Figure 4-8).

THIS IS: EDIT FUNCTION

SELECT FROM THE FOLLOWING

1 : PAGE ATTRIBUTES

2 : ROLL PARAMETERS

3 : CHARACTER ATTRIBUTES

4 : CURSOR ATTRIBUTES

5 : TAB SETTINGS

SELECTION:

EXEC CNCL BACKSPACE DEL

Figure 4-8. Edit Functions Menu

4.5.1 PAGE ATTRIBUTES MENU

The Page Attributes menu allows you to change properties that effect the appearance of the page.

To enter the Page Attributes menu from the Edit Functions menu, press the 1 key and then EXEC. The system will respond with Figure 4-9. Each function on the Page Attributes menu effects a different property of the page.

PAGE ATTRIBUTES	
LINE SPACING	0
KEYING (Y/N)	N
KEY COLOR	0
TOP MARGIN	50
LEFT MARGIN	125
BOTTOM MARGIN	432
RIGHT MARGIN	1385
CENTER POSITIONING	755
PAGE JUSTIFY	N
16 COLORS	Y
EXEC CNCL NEXT PREC BS DEL	

Figure 4-9. Page Attributes Menu

LINE SPACING refer to the number of scanlines between the lines of text. You can enter any number from -585 to 585. Negative numbers will bring the lines of text progressively closer together. You can even overlap lines of text using this function.

KEYING permits you to select the key color function then KEY COLOR enables you to select the color you wish to have omitted from a page. You must activate the keying function for this prompt to effect the display.

TOP MARGIN allows you to adjust the location of the first line of the display. This feature is useful when preparing a message that will appear

only in the lower third of the page. By setting the top margin at 300 you decrease the size of the page, therefore the VP-2 can recreate and display the page faster. The left, bottom and right margins can also be adjusted in the same manner.

CENTER POSITIONING enables you to reset the center mark of the page.

PAGE JUSTIFY allows you to right justify a page. The justification will not be evident until the page is viewed in the Display Mode.

The 16 COLORS function allows you to set the system for either 8 or 16 colors. To set the system for 8 colors, respond to the prompt with a N. Responding to the system by pressing the Y key sets the system for 16 colors.

To alter any of these characteristics: position the cursor next to the appropriate prompt and adjust the menu entry. Then press the EXEC key to return to your page.

4.5.2 ROLL PARAMETERS

To enter the Roll Parameters Menu from the Edit Functions Menu, press the 2 key followed by the EXEC key. The system will respond with Figure 4-10.

To set the page to roll from the bottom of the screen to the top, press the Y key.

AUTO PAUSE lets you set the roll to automatically pause. The length of the pause is set through CUE and PAUSE DELAY. CUE allows you to pause the roll until you press the WAIT/CUE key. PAUSE DELAY allows you to halt the roll for a preset amount of time, after which the roll continues.

Note that START ROLL-OFF SCREEN defaults to Y or yes. Therefore, your roll will start off screen unless you press N key.

To roll the last line of text off the top of the screen before erasing, respond to the END ROLL OFF-SCREEN by pressing the Y key.

ROLL	
ROLL	(Y/N) N
ROLL SPD:	1 SCANLINE PAIRS EVERY 1 FIELDS
AUTO PAUSE:	N (Y/N)
CUE:	Y(Y/N)
PAUSE DELAY:	1 (IN FIELDS)
START ROLL OFF SCREEN	Y(Y/N)
END ROLL OFF SCREEN	Y(Y/N)
EXEC CNCL BACKSPACE DEL	

Figure 4-10. Roll Parameters Menu

Then press EXEC, and the system will return to the edit page.

4.5.3 CHARACTER ATTRIBUTES FUNCTION

Character Attributes are discussed in paragraph 4.3.1.

4.5.4 CURSOR ATTRIBUTES FUNCTIONS

Cursor attributes are discussed in paragraph 4.3.2.

4.5.5 TAB MENU

The Tab menu allows you to set up to ten tab-stop positions on a page. To enter the Tab Menu from the Edit Functions Menu, press the 5 key followed by the EXEC key. The system will respond with Figure 4-11.

Any existing tabs are displayed in the Tab Menu. The cursor appears in the upper left hand corner of the menu. To set a new tab:

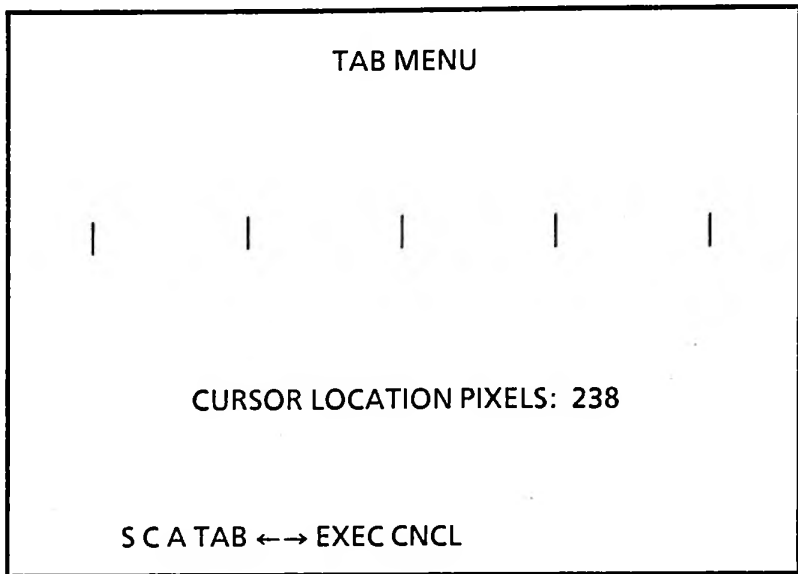


Figure 4-11. Tab Menu

1. Move the cursor with the cursor direction key. The TAB key will move the cursor to the next preset tab position.
2. Press the S key to set a new tab.
3. The C key clears any tab stop mark over which the cursor resides.
4. To clear all the tab set marks from a page, press the A key.

4.6 OPERATING EXAMPLES

The following paragraphs provide examples of frequently used displays. The roll and lower-third flip are both interesting methods of displaying text.

4.6.1 ROLL DISPLAY

The roll function allows you to roll text from the bottom to the top of the screen. The actual starting and finishing points of the roll are determined by you through a specialized menu. Paragraph 4.5.2 provides more detail on the basic roll function.

The construction of a complete roll begins with the creation of the message you wish to roll. Once the message is composed and saved, you can display it in conjunction with other messages or as a solitary message. Since the multiple message roll is more complex, we have provided a procedure for this construction.

4.6.1.1 Roll Message Construction. The following procedure describes the construction of a roll page.

1. Power-up the VP-2 and insert an initialized disk into the first disk drive. Be sure the disk locks into the disk drive.
2. Press the Spacebar to view the Main Menu.
3. Press the 1 key to select the Edit-Display Page function, and EXEC to enter the Edit-Display Page Create/Edit sub-menu.
4. Enter a name for the page. *Hint: Since we are creating a page roll across the screen, let's call it "RP1" (Roll Page One).*
5. Press the EXEC key to enter the blank page.
6. To create a simple background follow this keystroke formula.

BKND + HOME + 1 + PAGE + EXEC = Blue Background

7. Type out the desired message. To keep this demonstration simple, type "Message One".
8. Center the text by pressing the following keys:

CNTR + PAGE

9. To set the page to roll follow this keystroke formula.

MENU + 2 + EXEC + Y + EXEC = Basic Page Set To Roll

10. To save the page and return to the Main Menu enter the following keystroke formula.

EXEC + 1 + EXEC = MAIN MENU

That leaves you with one complete page ready to roll. (If you want to sneak a peak at the page enter the following keystrokes while viewing the Main Menu.

4 + EXEC + RP1 + EXEC = Page RP1 rolls.
(Press EXEC to return to the Main Menu.)

Build a second page by repeating steps 3 through 10. (Step 6 does not have to be repeated as a background will already exist.) For the second page we suggest you name the page RP2 and enter the message as "Message Two".

4.6.1.2 Auto Display Construction. Once the second page is composed, construct an Auto Display to display the two messages. The following procedure describes the construction of the Auto Display.

1. While viewing the Main Menu, press the 2 key followed by the EXEC key. The system will respond with the Auto Display Sub-menu.
2. Enter a name for the Auto Display. *Hint: Since we are creating a roll, "ROLL" is a good name for the Auto Display.*
3. After entering a name for the Auto Display, press the EXEC key. The system will respond with the Auto Display Menu.
4. Next to the DISPLAY PAGE: prompt, enter the name of the first page you wish to roll across the screen - RP1.
5. Press the NEXT key to proceed to the next page of the Auto Display Menu.

6. Next to the DISPLAY PAGE: prompt, enter the name of the second page you wish to be displayed - RP2.
7. Press the EXEC key, followed by the 1 key, followed by the EXEC key to save the Auto Display and return to the Main Menu.
8. The following keystroke formula allows you to view the Auto Display.

4 + EXEC + Name Of Display (ROLL) + EXEC = Display

4.6.2 READ LOWER THIRD

The Read Lower Third function allows you to quickly display consecutive messages on the lower third of your screen. By adjusting the top margin of the screen, you :

- Reduce the page size
- Relocate the "HOME" position
- Reduce the data need to reconstruct the page.

4.6.2.1 Page Construction. The following procedures guide you through background construction, page modification and text entry.

1. Turn on the VP-2 and insert an initialized message disk. Make sure the disk locks into the drive.
2. Press the Spacebar to view the MAIN MENU.
3. The following keystroke formula produces the Display Page Create/Edit Menu.

1 + EXEC = Display Page Create/Edit Menu

4. Enter a name for the page you are about to create. *Hint: Since you are creating a lower third display page, call the page LT1 (Lower Third One).*
5. Press the EXEC key to enter the blank page.

The background for the lower third page highlights the information to be displayed. The following procedure details the construction of a typical lower third background.

1. While viewing the blank page, press the **BKND** key to enter the background mode.
2. Use the cursor direction down (**↓**) key to position the background cursor on line 320. *Hint: The **LINE 0** prompt on the second line of the background prompts indicates the cursor position.*
3. Once the cursor is positioned on line 320, press the **0** key followed by the **1** key to select blue as your active background color.
4. Press the cursor direction down (**↓**) key three times. A small line of blue appear on-screen.
5. Press the **0** key followed by the **6** key to select yellow as your active background color.
6. Press the cursor direction down (**↓**) key three times to create a line of yellow background.
7. Press the **0** key followed by the **1** key to reselect blue as your active background color.
8. Press the cursor direction down (**↓**) key three times to put down a line of blue equal to the line of yellow.
9. Press the **0** key followed by the **6** key to reselect yellow as the on-line color.
10. Press the cursor direction down (**↓**) key three times to create another yellow stripe on the background.
11. Reselect blue as your active background color (**0 + 1 = blue**).

12. "Paint" with blue until you reach line 430. The LINE prompt will read 430 when the cursor is at this point.
13. Select yellow as your active background color (0 + 6 = yellow)
14. Press the cursor direction down (↓) key three times to build a yellow stripe.
15. Create another blue stripe (0 + 1 + cursor direction down (↓) key three times = blue stripe.
16. Create another yellow stripe (0 + 1 + cursor direction down (↓) key three times = yellow stripe.
17. Select blue as your active background color, and press the cursor direction down (↓) key until a beep is heard.
18. Press the EXEC key to exit the background mode.

The final modification to transform your page from the standard VP-2 display page to the specialized lower third page is the relocation of the Top Margin. Follow the subsequent steps to adjust your top margin and create the sample display pages.

1. While viewing the page with the new background, enter the following keystrokes formula.

MENU + EXEC = Page Attributes Menu

2. Position the cursor next to the TOP MARGIN prompt. The current entry is 50. Change the entry to 340.
3. Press the EXEC key to return to the edit page. You will notice the new cursor position. This is the adjusted home position.
4. At this point you can type out your first message. To keep this example simple, type:

Lower Third
Message One

5. Press the **CENTER + PAGE** keys to center the text.
6. To return to the Main Menu and save the display, press:

EXEC + 1 + EXEC

7. To create additional lower third display pages, press the **1 + EXEC** keys to enter the Display Page Create/Edit Menu.
8. Enter the name "LT2" (Lower Third Two) on this menu and press the **EXEC** key to proceed to the blank page.
9. You will notice that the cursor is in the modified location and the previous background is on-screen. To create the new page enter the text:

Lower Third
Message Two

10. Center the text by pressing:

CENTER + PAGE

11. Return to the Main Menu and save the page by pressing:

EXEC + 1 + EXEC

12. Create a third page by repeating steps 7 - 11. This time, name the page LT3 and enter the message:

Lower Third
Message Three

4.6.2.2 Auto Display Construction. Once the three pages are created, you must create an Auto-Display to display your pages. The following procedure describes construction of the Lower Third Auto Display.

1. While viewing the Main Menu, press the **2** key followed by the **EXEC** key. The system will respond with the Auto-Display Create/Edit Menu.

2. Enter a name for the Auto Display. *Hint: Since you are creating a Lower Third Auto Display, "LT/AD" is a good name for the Auto Display.*
3. After entering a name for the Auto Display, press the EXEC key. the system will respond with the Auto-Display Menu.
4. Next to the DISPLAY PAGE: prompt, enter the name of the first page you wish to view - LT1.
5. Press the NEXT key to proceed to the next page of the Auto-Display Menu.
6. Next to the DISPLAY PAGE: prompt, enter the name of the second page you wish to view - LT2.
7. Position the cursor next to the CUE (Y/N): N prompt. Press the Y key. This way you will be able to control when the second page appears on-screen.
8. Press the NEXT key to proceed to the next page of the Auto-Display Menu.
9. Next to the DISPLAY PAGE: prompt, enter the name of the third page you wish to view - LT3.
10. Position the cursor next to the CUE (Y/N): N prompt. Press the Y key.
11. Save the Auto-Display by entering the following keystrokes.

EXEC + 1 + EXEC = Main Menu

12. Display the Auto-Display by pressing:

4 + EXEC + LT/AD + EXEC = Auto Display

13. Press the CUE key to change from "Lower Third Message One" to "Lower Third Message Two" to "Lower Third Message Three".

SECTION 5

MAIN MENU FUNCTIONS

5.1 INTRODUCTION

This section provides a complete guide to all the other functions from the Main menu after page construction.

5.2 MAIN MENU

The Main menu consists of three sections: the title line, the primary functions list and the prompt line. The title line names the menu and states the software revision number. The primary functions list provides the VP-2 functions and their reference numbers. The prompt line lists the available keystrokes. Figure 5-1 illustrates the Main Menu.

Main Menu - VP-2 2:12

1: EDIT DISPLAY-PAGE	PG
2: EDIT AUTO-DISPLAY	AD
3: EDIT PALETTE-ANIMATION	PA
4: DISPLAY	PG/AD/PA
5: COPY	8: DIRECTORY
6: RENAME	9: INITIALIZE DISK
7: DELETE	10: DUPLICATE DISK

SELECTION : 4

EXEC CNCL BACKSPACE DEL → ↓ ← ↑

Figure 5-1. Main Menu Display

5.3 AUTO DISPLAY FUNCTION

The Auto Display function allows you to display a series of recorded pages and palette animations as a single sequential display. Each auto display can contain up to 100 steps and be repeated an infinite amount of times.

5.3.1 AUTO DISPLAY OPERATION

Before entering the Auto Display mode, prepare a list of pre-composed pages and palette animations on a sheet of paper.

To enter the Auto Display menu from the Main menu press the 2 key, followed by the EXEC key. The system will respond with the first Auto Display Menu (Figure 5-2).

Enter a name for the Auto Display and your Drive number. Then press the EXEC key. You are now at the first step in the Auto Display functions (Figure 5-3).

Enter the name of your display page and then enter the number of the drive containing your disk next to the DISK DRIVE: prompt.

NOTE

We recommend you disregard palette animation for now. Once familiar with the Auto Display function, refer to paragraph 5.4 for a description of the palette animation function.

The CUE (Y/N): N prompt allows you to set the auto display to pause automatically before the frame is viewed. The frame will not be viewed until the WAIT/CUE key is pressed. To utilize this function of the auto display enter a Y next to the CUE (Y/N): N prompt.

The PAGE DELAY prompt allows you to set a time delay in the auto display. The auto display will pause for a preset amount of time, then continue. A delay of thirty frames equals one second. The CUE (Y/N): N prompt must be N.

AUTO DISPLAY

CREATE / EDIT

NAME:

(DEVICE): 1

Figure 5-2. First Auto Display Menu

AUTO DISPLAY

(TITLE APPEARS HERE)

STEP #: 1 OF 1 STEPS

DISPLAY PAGE :
DISK DRIVE : 1

PALETTE ANIM :
DISK DRIVE : 1

CUE (Y/N) : N

PAGE DELAY : 0 (FRAMES)

REPEAT 0 TIMES
FROM STEP # 1

EXEC CNCL NEXT BS DEL

Figure 5-3. Auto Display Menu

The REPEAT prompt allows you to repeat a portion of or the entire Auto Display. Enter the number of the first frame you want viewed in the Auto Display "loop" next to the REPEAT prompt. The "loop" will then repeat everything from the first step to the step containing the repeat command. Enter the number of repetitions desired next to the TIMES prompt. *The VP-2 will only return to a previous step to begin repeating ; if you enter a later step the VP-2 will ignore the command.*

After making all necessary entries, proceed to the next page of the Auto Display Menu by pressing the NEXT key. The PREV key allows you to return to the previous steps in the Auto Display. However, don't hit NEXT key unless you are going to enter info in that step or else the system will count it as one of your steps.

To insert a step in an Auto Display, press PAGE key, then press INSERT.

To delete a step in an Auto Display, press PAGE key, then press the DEL key.

5.3.2 KEYSTROKE FORMULA

Mode Entrance

1. 2 + EXEC = First Auto Display Menu
2. Display Name + EXEC = Auto Display Menu

Mode Exit

1. EXEC = Exit Menu
2. 1 (save) or 2 (abort) or 3 (return to editor) + EXEC = Main Menu

5.4 PALETTE ANIMATION

Palette Animation allows you to dynamically replace colors of an existing display with other colors from the 512 color palette. This changing of colors, in timed sequence, can add the illusion of motion to your presentations. Each palette animation is an independent entity and can be applied to any page.

5.4.1 PALETTE ANIMATION OPERATION

From the main menu press the 3 key, then the EXEC key to enter the first Palette Animation menu. At the NAME: prompt, enter the name of the palette animation, and enter the number of the drive being used at DISK DRIVE: prompt. Press the EXEC key to enter the Palette Animation Menu (Figure 5-4).

The Palette Animation menu is divided into four sections: titling, the sequence control, the color location RGB value lines and the prompt line.

The first two lines of the menu state that the palette animation mode is active and the title you have assigned to this animation.

Lines 3 through 6 are the sequence controller lines. Entries on these lines allow you to set repeat "loops" in your palette animation. A "loop" repeats a portion of a palette animation a preset number of times. Entries at the REPEAT 0 TIMES prompt tell the VP-2 to repeat the previous color altering sequence the specified number of times. The STEP DELAY : 0 FRAMES prompt allows you to set a delay in a palette animation. A delay of thirty frames equals one second.

The third section of the menu is the color location - RGB value lines of the menu. These entries determine the colors of the display.

The prompt line appears at the bottom of the menu that lists the valid keystrokes.

PALETTE ANIMATION	
TITLE LINE	
STEP # : 1 OF 1 STEPS	
REPEAT 0 TIMES	
FROM STEP # 1	
STEP DELAY : 0 FRAMES	
COLOR (PALETTE) VALUE	COLOR PALETTE
0 = 000	8 = 000
1 = 000	9 = 000
2 = 000	10 = 000
3 = 000	11 = 000
4 = 000	12 = 000
5 = 000	13 = 000
6 = 000	14 = 000
7 = 000	15 = 000
EXEC CNCL NEXT PREV BS DEL	

Figure 5-4. Palette Animation Menu

Here are some helpful hints to assist you in Palette Animation construction.

- Before entering the Palette Animation, it is a good idea to sketch the display you intend to animate. Label the color location numbers and RGB values of each character and the background. This way you will be able to preview the display you are animating.
- If you have not used a palette color location in your display, you can not use it in your animation.

- If you change the RGB value of the color location used for your background, the background of your display will change.
- Characters can be made "invisible" by assigning the same RGB value to the background and the character. A character with an RGB value of 777 will seem to be invisible on a background of 777. Assigning characters RGB values alternating from the Background RGB values to a different RGB value will create a flash effect.
- Enter the desired RGB values next to each color location used in your display, (usually the original RGB values in your display).

NOTE

If you have the Multi-font function, pressing the CMND key followed by the L key allows you to automatically place the current 16-color position RGB values into the current palette animation step on screen.

After making all necessary entries, proceed to the next page of the Palette Animation menu by pressing the NEXT key. The values entered on the first menu page appear on the second menu page. Position the cursor over the RGB value of the color you wish to alter and enter the new RGB value. Press the next key to continue through the Palette Animation menu.

To return to a previous step press the PREV key.

To insert a step into a palette animation, press the PAGE key, then press the INSERT key.

To delete a step in a Palette Animation, position the cursor in the step you want to delete and press the PAGE key, then press the DEL key.

After the palette animation is completed, return to the Main menu by pressing EXEC. You must then proceed through the exit menu.

5.4.2 KEYSTROKE FORMULA

Mode Entrance

- 1. 3 + EXEC = First Verification Menu**
- 2. Name + Drive Number + EXEC = Palette Animation Menu**

5.5 DISPLAY FUNCTION

The Display function allows you to view any display created on the VP-2. After composing any auto display, palette animation or individual page, you can view it by entering the display mode and entering the desired display.

5.5.1 DISPLAY OPERATIONS

To select the Display function from the Main menu, check that the selection is 4 and press the EXEC key. The system will respond with the Figure 5-5.

Enter the name of the display you wish to view at the NAME: prompt. Enter the number of the drive containing the message disk at the DISK DRIVE: 1 prompt. If your system has only one drive, no selection is necessary. Press the EXEC key to view the display.

While the display is being viewed a prompt line will appear on the bottom of the edit monitor. This line indicates the valid keystrokes. If the CUE prompt appears in this line it is an indication that you are viewing an auto display. To proceed in the auto display you press the WAIT/CUE key, or the previously installed "page advance" switch.

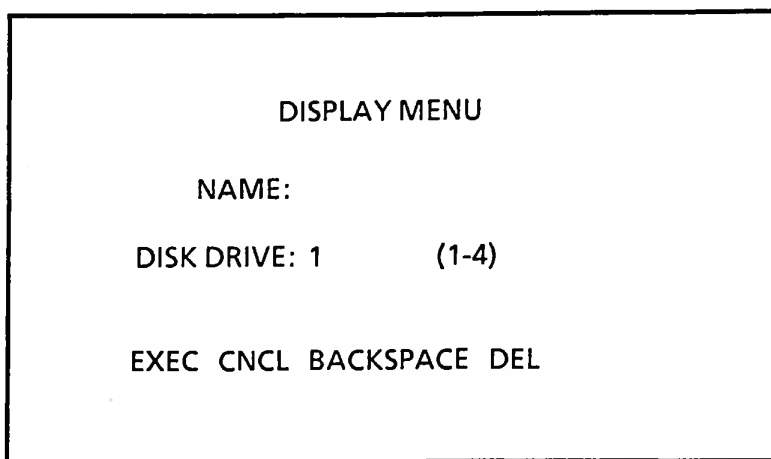


Figure 5-5. Display Menu

NOTE

If you have installed a page advance switch, it can be used instead of the WAIT/CUE key during all operations.

To cancel an auto display press the EXEC key. The VP-2 will display the Main menu. On an Edit Display page press EXEC key and EXIT menu will appear on screen.

5.5.2 KEYSTROKE FORMULA

Mode Entrance

1. 4 + EXEC = Display Menu
2. Display Name + Drive Selection (if necessary) + EXEC = Display

Mode Exit

EXEC = Main Menu

5.6 COPY FUNCTION

The Copy function allows you to copy any display. A copy can be recorded on a separate disk or on the same disk as the source page. If the new page is stored on the same disk as the source page, the second display must be renamed.

5.6.1 COPY OPERATIONS

To enter the Copy Page menu from the Main Menu press the 5 key and the EXEC key. The system will respond with Figure 5-6.

COPY

SOURCE
NAME: TITLE OF ORIGINAL

DISK DRIVE (1-4):1

DESTINATION
NAME: TITLE OF NEW PAGE

DISK DRIVE (1-4):1

EXEC CNCL BACKSPACE DEL

Figure 5-6. Copy Page Menu

At the SOURCE NAME: prompt, enter the name of the original page. Use the cursor direction keys to proceed to the DISK DRIVE (1-4): 1 prompt. Enter the number of the drive containing the source page.

Proceed to the DESTINATION NAME: prompt. Enter a name for the copy next to this prompt. At the second DISK DRIVE (1-4): 1 prompt, enter the number of the drive containing your destination disk.

NOTE

If you are copying a display onto the same disk as the source display, the new display name must be different than the original name.

After all necessary entries have been made on the Copy menu, press the EXEC key to begin copying the page. The VP-2 will return to the Main menu when the copy is complete.

5.6.2 KEYSTROKE FORMULA

Mode Entrance Formula

5 + EXEC = Copy Page Menu

Mode Exit Formula

EXEC = Main Menu

5.7 RENAME FUNCTION

The Rename function allows you to rename existing pages.

5.7.1 RENAME OPERATIONS

To enter the Rename function press the 6 key, followed by the EXEC key. The Rename Menu (Figure 5-7) will appear on the edit monitor.

The cursor appears next to the OLD NAME: prompt. Enter the page name you want to change.

Enter the number of the drive containing your message disk next to the DISK DRIVE (1-4): 1 prompt.

Next to the NEW NAME: prompt, enter the new name you want to assign to the selected page.

After all entries have been made on the menu, press the EXEC key to rename the page. The Main menu will appear on the edit monitor when the operation is complete.

RENAME

OLD NAME:

DISK DRIVE (1-4):1

NEW NAME:

EXEC CNCL BACKSPACE DEL →↓←↑

Figure 5-7. Rename Menu

5.7.2 KEYSTROKE FORMULA

The following Keystroke formula provides a general outline for the entire rename process.

1. 6 + EXEC = Rename Menu
2. Original Name + Disk Drive + New Name + EXEC = Main Menu

5.8 DELETE FUNCTION

The Delete function allows you to delete any existing display (or palette animation) from your floppy disk.

5.8.1 DELETE OPERATIONS

To enter the Delete function, press the 7 key followed by the EXEC key. The Delete Menu (Figure 5-8) will appear on the edit monitor.

DELETE

NAME:

DISK DRIVE (1-4):1

NEW NAME:

EXEC CNCL BACKSPACE DEL →↓←↑

Figure 5-8. Delete Menu

Enter the name of the display you wish to delete at the NAME: prompt. Position the cursor next to the DISK DRIVE and enter the number of the drive containing your floppy disk.

- Press the EXEC key to delete the specified display and return to the Main menu.
- Press the CNCL key, to abort the procedure and return to the Main Menu.

5.8.2 KEYSTROKE FORMULA

The following Keystroke formula provides a general outline for the entire deleting process.

1. 7 + EXEC = DELETE MENU
2. Display Name + Disk Drive + EXEC = Main Menu

5.9 DIRECTORY FUNCTION

The Directory allows you to view the assigned names of all pages, auto displays, and palette animation on the micro floppy disk. The name of any saved display is automatically entered in the Directory. The amount of block and space available is also listed.

If an existing display is edited, the original graphic remains unchanged and a second page is created. In the directory the original display can be distinguished from the edited one by the addition of the characters "BAK" at the end of the original name. (Refer to Delete Menu, Figure 5-8.) Only one back-up (the original) and one edited (modified) version of each graphic can be listed in the Directory. If additional editing is done to a display with a backup, the first display, with the "BAK" marking, is automatically replaced by the first edited one. BAK pages cannot be edited.

Each page of the Directory consists of approximately 18 lines of information. The first line of the Directory states the name of the disk (assigned during initialization). The body of the directory is the display listing, including display title, type of display and disk blocks used by the display. The number of disk blocks used by a display is significant because: the more blocks a display occupies, the longer it takes the VP-2 to rebuild the page. The last line of each page of the Directory displays the total number of disk blocks used.

5.9.1 DIRECTORY OPERATION

To enter the Directory from the Main menu press the 8 key followed by the EXEC key. The VP-2 will "ask" you to specify the drive containing your floppy disk. Enter the number of the drive and press the EXEC key. The system will respond with the first page of the Directory as displayed in Figure 5-9. Press any key, except the EXEC key, to view additional pages of the Directory.

Press the EXEC key to return to the Main Menu.

DIRECTORY OF: TEST DISK									
NAME				TYPE			BLOCKS		
= = = = =				= = =			= = = =		
TEST	.	BAK		PG			2		
TEST 1	.			PG			2		
PROMO	.			PG			2		
TEST DISP	.			AD			1		
TEST	.			PG			2		
TEST PAL	.			PA			1		
19 OUT OF 1280 BLOCKS USED									

Figure 5-9. Directory

5.9.2 KEYSTROKE FORMULA

Mode Entrance

1. 8 + EXEC = Directory
2. Press any key (except the EXEC key) to "turn" the menu pages.

Mode Exit

EXEC = MAIN MENU

5.10 INITIALIZE DISK FUNCTION

The Initialize Disk function is a multi-purpose function. Initializing a new disk prepares the disk for recording displays. You can also use the initialization function to "erase" any information on a previously used disk. During the initialization process you also name the disk. Refer to paragraph 3.3 for details.

5.11 DUPLICATE DISK FUNCTION

The Duplicate Disk function allows you to copy the entire contents of one disk to another disk. You can use up to three disk drives.

5.11.1 DUPLICATION DISK OPERATION

Before beginning the duplicating procedure initialize the new disk. The new disk can not be recorded to if it has not been initialized.

CAUTION

Keep the write protect tab in place on the Original Disk while duplicating the disk. This will protect all prerecorded data while the disk is being copied.

After initializing the new disk, begin duplicating your message disk by pressing the 1 key, followed by the 0 key. The number 10 should appear next to the SELECTION: prompt at the bottom of the Main menu. To enter the Duplicate Disk mode press the EXEC key. The system will respond with the Disk Copy Menu (Figure 5-10).

Enter the number of the drive containing the original floppy disk next to the SOURCE DISK DRIVE (1-4): prompt. Enter the number of the drive containing the blank disk next to the DESTINATION DISK DRIVE 4: (1 - 4): 1 prompt. Press the EXEC key to begin copying your disk.

DISK COPY

SOURCE
DISKDRIVE (1-4):

DESTINATION
DISK DRIVE (1-4): 1

EXEC CNCL BACKSPACE DEL

Figure 5-10. Disk Copy Menu

If you are using a single drive system, follow the prompts as they appear on the screen. First "write protect" your original disk, then load the source disk and press EXEC. At this point the disk drive will "read" the information from the floppy disk. Next "load the DESTINATION disk. THEN TYPE EXEC." Prompt will appear when the drive has read the information on the disk.

Remove the original disk from the drive and insert the new disk into the drive. Press the EXEC key. The system will "write" to the new disk. When the system has finished writing the information to the disk the "RELOAD ORIGINAL DISK THEN TYPE EXEC" prompt will appear on the edit monitor. Continue to follow the directions of the prompts.

When the copy is complete, the COPY COMPLETE prompt will appear on the edit monitor.

If you are using a multi-drive system simply press the EXEC key. The prompts on the edit monitor will alternate between "READING ORIGINAL...." and "WRITING COPY" until a complete copy is created.

5.11.2 KEYSTROKE FORMULA

1. **1 + 0 + EXEC = Disk Copy Menu**
2. **Source Drive # + Destination Drive # + EXEC = Begin Copy**
3. **Follow prompts.**

SECTION 6

OPERATOR MAINTENANCE PROCEDURES

6.1 INTRODUCTION

A Character Generator is a complex electronic device that must be addressed and operated precisely. However, most problems arise at initial turn-on and are often correctible by the operator. If the operator can not correct the fault then you should call Chyron for further assistance.

CAUTION

Objects such as books, coffee cups, pads, etc., should never be stored on top of the VP-2. Smoking in the vicinity of the VP-2 should be avoided as smoke particles can damage the floppy disks.

6.2 INITIAL POWER UP

If the power switch on the front panel does not illuminate when pressed, the power fuse may be open or missing.

1. Locate the fuseholder on the rear panel (Figure 2-1) and release cap with a standard screwdriver.
2. Install a new 3 amp type AGC cartridge fuse.
3. If the unit still does not power up, contact a **CHYRON** representative.

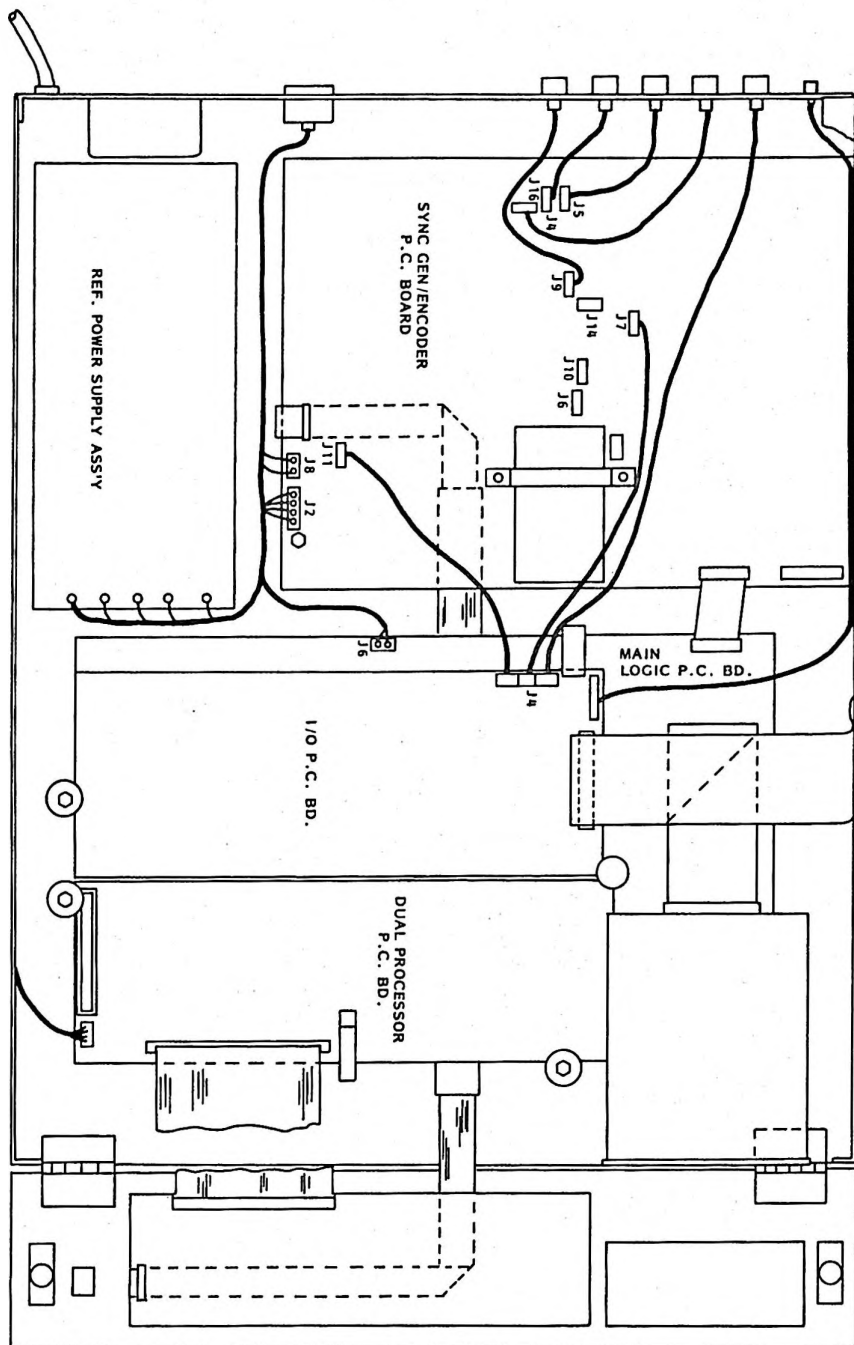


Figure 6-1. VP-2 Top View, Cover Removed

6.3 INITIAL DIAGNOSTIC

After the VP-2 is turned on for about 15 seconds a blank blue screen will appear followed by a display of six color stripes. Also the word FONT and a number (from 1 to 6) will be shown in the style of each loaded font. The appearance of a red screen at any time indicates that the VP-2 is not functioning properly, and you should go through the following procedure which may correct the fault.

1. Turn power off and remove top cover.
2. Refer to Figure 6-1 for the location of internal connectors and make sure that each connector is securely seated.
3. Turn power on and check for normal diagnostic.
4. If normal diagnostic is not displayed, turn power off.
5. Refer to Figure 6-1 and locate light-emitting diodes (LEDs) DS1 (green) and DS2 (red) on the Dual Processor Board.
6. Turn power on. Both DS1 and DS2 should be illuminated in sequence immediately.

6.4 DISK

Problems with a disk generally consist of improper loading, contamination of disk surface, or distortion caused by heat or improper storage. These problems frequently can be eliminated by the following.

6.4.1 LOADING

1. Disk should be inserted into drive with label facing up and arrow pointing into the drive.
2. **Do not force disk into drive.** If the disk eject button (Figure 2-1) does not pop out, the disk is not properly seated.
3. Remove disk, check position of label and arrow, and reinstall into drive.

6.4.2 HANDLING

1. Store disks not being used in plastic envelopes and in a protective box.
2. Keep disks away from any magnetic fields.
3. Do not use an eraser on disk label.
4. Make sure cigarette ashes or any powdery substances are not dropped accidentally on any disk.
5. Make sure disks are not exposed to heat or sunlight.

6.5 FONTS

If a font or fonts are not displayed on the initial diagnostic, the font may need to be reseated. Proceed as follows.

NOTE

Special fonts such as logos are not displayed during the initial diagnostic. Such fonts must be tested in an actual page display.

1. Make sure that the VP-2 power is off. Removing or inserting a font with power on may damage the font and may cause damage to the VP-2.
2. Release the front panel locking knobs and swing front panel down for access to fonts.
3. Refer to Figure 2-5 and locate camlock for font that does not display correctly. Turn camlock to open (O) position and remove font.
4. Inspect font for bent pins and straighten any bent ones carefully with needle-nose pliers.
5. Clean any contaminants off pins with alcohol and clean rag.
6. Open and close socket camlock several times to remove any dirt or corrosion in socket, and then carefully replace font in socket. Turn camlock to closed (C) position.

If font is not displayed correctly after performing the preceding steps, then contact a CHYRON representative for assistance.

APPENDIX A

INTERNATIONAL VP-2

A.1 INTRODUCTION

Software for the International VP-2 enables display of additional characters not found in the English alphabet. The International VP-2 includes its own software (including all standard VP-2 features and functions) and keyboard. The illustration located at the back of this appendix show the key cap positions of the additional characters and accent marks.

A.2 OPERATING PROCEDURES

The following paragraphs provide instructions for using the special characters and accent marks. Table A-1 shows the available international characters and the key caps under which they are located.

A.2.1 ADDITIONAL CHARACTERS

To use international characters, first make sure that the selected font is an international font. Locate the position of the desired character in Table A-1. Then hold down the ALT CHAR key, while pressing the desired special character or accent mark. The character will be displayed on screen in the currently selected font and color.

Some of the additional characters have both upper-case and lower-case forms. Use CAPS LOCK or SHIFT key along with ALT CHAR to use upper-case special characters. If the ALT CHAR key is not pressed, then strictly standard alphanumeric characters will result.

All additional characters and accent marks are reflected in the VP-2's status line. Alternate characters are indicated in the status line by the automatic insertion of an additional "↑" character. For example, the special character Å is displayed as "↑↑A", and å as "↑↓A" in the status line (However, the acute and grave accent marks will be displayed as "↑↑↓" and "↑↓", respectively.)

TABLE A-1. INTERNATIONAL CHARACTER SET, ADDITIONAL CHARACTERS

Char	Keystroke
¡	ALT CHAR and 1 (or !) Key
§	ALT CHAR and 2 (or @) Key
¢	ALT CHAR and 3 (or #) Key
°	ALT CHAR and 5 (or %) Key
£	ALT CHAR and 6 (or ¢) Key
ø	ALT CHAR and) Key
ø	ALT CHAR and O Key
À	ALT CHAR and SHIFT A Key
À	ALT CHAR and a Key
ß	ALT CHAR and b (or B) Key
Ç	ALT CHAR and SHIFT C Key
ç	ALT CHAR and c Key
Ð	ALT CHAR and SHIFT D Key
ð	ALT CHAR and d Key

Char	Keystroke
Æ	ALT CHAR and SHIFT E Key
æ	ALT CHAR and e Key
ı*	ALT CHAR and i (or I) Key
ı*	ALT CHAR and j (or J) Key
Ł • Ł	ALT CHAR and SHIFT L Key
ł • ł	ALT CHAR and l Key
Ń	ALT CHAR and SHIFT N Key
ñ	ALT CHAR and n Key
Œ	ALT CHAR and SHIFT O Key
œ	ALT CHAR and o Key
Ş	ALT CHAR and SHIFT S Key
ş	SHIFT CHAR and s Key
¿	ALT CHAR and SHIFT ? (or /)

* To use the letters i and j with accents, these characters are displayed "dotless."

A.2.2 ACCENT MARKS

When an accent mark is pressed, the accent is automatically centered over the character that precedes it on the line. First type the character, then the keystroke combination ALT CHAR/accent mark. The ALT CHAR key is pressed only for the accent, not for the character under it. The accent mark will be displayed in the selected font and color over the character that had been previously typed. (Accents can also be typed in different colors, fonts, etc. than the characters beneath them.)

The six accent marks provided by the International Character Set are:

- acute (´)
- circumflex (^)
- grave (`)
- inverted circumflex (ˇ)
- umlaut (¨)
- tilde (~)

Accents are considered as separate from the characters over which they are positioned. Therefore, they can be moved or deleted without affecting the characters underneath them. To insert an accent mark, position the cursor to the immediate right of the character that will be accented. Press INSERT and the the ALT CHAR/accent mark combination. (During the Overlap Mode, if an operator positions accents over characters that have already been typed, unexpected results can occur. This is because characters are attached to the end of a line in Overlap. Therefore, CHYRON recommends placing accents over existing characters using the Insert function.)

Table A-2 shows the available accent marks and the key-caps under which they are located.

TABLE A-2. INTERNATIONAL CHARACTER SET, ACCENT MARKS

Char	Keystroke	Char	Keystroke
^	ALT CHAR and - (or _) Key	´	ALT CHAR and ' (or ") Key
~	ALT CHAR and = (or +) Key	¨	ALT CHAR and ; (or :) Key
= =	ALT CHAR and p (or P) Key	˘	ALT CHAR and ' (or ") Key

APPENDIX B

VP GRAB / MULTIFONT OPTION OPERATION SUPPLEMENT

CHYRON CORPORATION
5 HUB DRIVE
MELVILLE, N.Y. 11747
PUB. NO. 2A01112

NOTICE

Please note that a few of the older single-font chips will not operate in the new Multi-size Font Board. If you have a problem with an older single-font chip, notify Video Products Sales at (516) 845-2027.

B.1 INTRODUCTION

The new VP Grab/Multifont Option expands the applications of the VP-2 by combining two unique innovations from Chyron's Video Product Division - VP Grab and Multifont. VP Grab allows the operator to combine the high resolution text of the VP-2 with the detailed graphics of the CHAMELEON paint system. VP Multifont provides the operator with the ability to have up to 37 fonts on-line.

The VP Grab/Multifont Option can be ordered with new VP-2's or is available as a field update for existing units. The following procedure is designed to assist you with the operation of the VP Grab and Multifont.

B.2 VP GRAB OPERATIONS

Operating the VP-2 and CHAMELEON to create a composite graphic may be divided into two separate operations.

B.2.1 VP-2 OPERATIONS

First, compose a page of text on the VP-2. (Using another monitor and keying the CHAMELEON video through the VP-2 facilitates character placement.) The CHAMELEON will accept 15 colors from the VP-2. Therefore it is important to remember to designate one of the 16 on-line colors as the keyed color (usually the background color). After the message is complete, the operator may send the graphic to the CHAMELEON by pressing the CMND key. The system will display the Command Menu (Figure B-1).

A "T" prompt has been added to the Command Menu to allow the operator to transmit the message data from the VP-2 to the CHAMELEON. Press "T" on the VP-2 keyboard and the information is on its way to the CHAMELEON.

COMMAND	
A	MAKE LINE ABSOLUTE
R	MAKE LINE RELATIVE
P	AUTO PAUSE THIS LINE
N	NO AUTO PAUSE
M	DISPLAY MARGINS
B	BUILD PAGE
D	RETURN TO DEFAULTS
T	TRANSMIT DATA

Figure B-1. Command Menu

OP'S OUTLINE

1. Designate color to be key color
2. Compose VP-2 graphics page
3. Press CMND key
4. Press "T" key

B.2.2 CHAMELEON OPERATIONS

When the operator selects the A icon on the CHAMELEON's Menu the system will display the Grab Menu. At this point it is important for the operator to select one of the unused parent colors on the CHAMELEON's Menu. This color and its 14 family colors will be replaced by the VP-2's 15 designated colors.

On the Grab Menu the operator will notice three icons (See Figure B-2). Select the GRAB icon to grab the graphics from the VP-2. After the GRAB icon has been selected an additional STOP icon will appear.

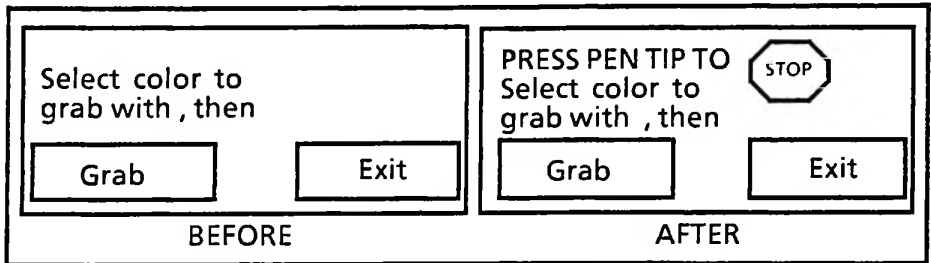


Figure B-2 Two CHAMELEON Grab Menus

At this point the graphics from the VP-2 will begin to appear scan-line by scan-line from top to bottom.

OP'S OUTLINE

1. Select **A** icon at lower left hand corner of CHAMELEON Menu
2. Select GRAB icon from GRAB Menu

To abort this procedure once the GRAB icon has been selected the operator must press the pen tip down on the CHAMELEON tablet **AND** press the CNCL key on the VP-2 keyboard. The STOP icon does NOT have to be selected.

B.3 VP MULTIFONT

VP Multifont expands the maximum number of on-line fonts from six to thirty-six, thus allowing the operator to change font style and size through simple keystrokes.

B.4 MULTIFONT OPERATION

The first difference the operator will notice after entering the edit mode will be in the Status Menu at the bottom of the edit monitor (Figure B-3). Notice that after the "F1" prompt a new ",1" prompt appears. This new prompt represents the size of the font style chosen.

X	C7	F1,1	EOP	R	125,72
---	----	------	-----	---	--------

Figure B-3. Status Menu

NOTE

Each Multisize Font Chip contains information for several sizes of a specific style of font. Please check the label of your font chips for exact scanline measurement of each reference size.

To change the size of the font :

- Step 1. Press the FONT key. The system will display the Font Select Menu shown in Figure B-4.
- Step 2. Move the cursor to the SIZE prompt row using the cursor direction keys.
- Step 3. Enter a number ranging from 1 to 6 (1 for the smallest and 6 for the largest font size).

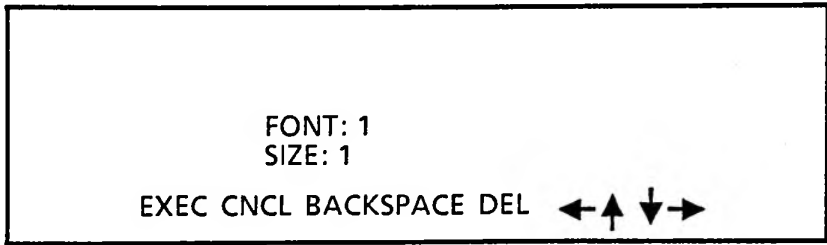


Figure B-4. Font Select Menu

NOTE

Most font chips provide six different sizes of fonts. Only Helvetica Medium font has seven. If an unavailable size is selected the VP-2 will respond with - **103 FONT DOES NOT EXIST**. To recover press CNCL then repeat steps 1 - 3.

- Step 4. Press EXEC to return to the edit screen with the new font size selected.

The Character Attributes Menu has been revised to reflect the additional font sizes (see Figure B-6). If the operator wishes to experiment with different font styles and/or sizes once a page has been created, simply position the cursor over the desired characters and follow this procedure.

- Step 1. Press the MENU key. The system will display the Edit Functions Menu (Figure B-5).
- Step 2. Select the Character Attributes Menu by entering the number 3.
- Step 3. Press EXEC. The system will display the Character Attributes Menu.
- Step 4. Move the cursor to the SIZE prompt row.

THIS IS: EDIT FUNCTIONS

SELECT FROM THE FOLLOWING

- 1 : PAGE ATTRIBUTES
- 2 : ROLL PARAMETERS
- 3 : CHARACTER ATTRIBUTES
- 4 : CURSOR ATTRIBUTES
- 5 : TAB SETTINGS

SELECTION:

EXEC CNCL BACKSPACE DEL ←↑↓→

Figure B-5. Edit Functions Menu

CHARACTER
ATTRIBUTES CHANGE

FONT	1
SIZE	1
CHAR COLOR	7
EDGE TYPE	B
EDGE COLOR	0
EDGE X	6 SLOPE/PIXS
EDGE Y	6 SCAN LINES
ITALIC	1 UNITS
INTERCHAR SPACE	6 PIXELS

EXEC CNCL BACKSPACE DEL ←↑↓→

Figure B-6. Character Attributes Menu

Step 5. Enter a number ranging from 1 to 6 (1 for the smallest and 6 for the largest font size).

Step 6. Press EXEC to return to the edit screen with the new font size selected.

The Cursor Attributes Menu has also been revised to reflect the additional font sizes (Figure B-7). Select font styles and sizes through this menu if you wish to continue creating the page with the new selection. To select a new font size through the Cursor Attributes Menu:

Step 1. Press the MENU key. The system will again display the Edit Functions Menu (Figure B-5).

Step 2. Select the Cursor Attributes Menu by entering the number 4.

Step 3. Press EXEC. The system will now display the Cursor Attributes Menu (Figure B-7).

CURSOR ATTRIBUTES CHANGE	
FONT	1
SIZE	1
CHAR COLOR	7
EDGE TYPE	B
EDGE COLOR	0
EDGE X	6 SLOPE/PIXS
EDGE Y	6 SCAN LINES
ITALIC	1 UNITS
INTERCHAR SPACE	6 PIXELS
EXEC CNCL BACKSPACE DEL ←↑↓→	

Figure B-7 Cursor Attributes Menu

Step 4. Move the cursor to the SIZE prompt row.

- Step 5. Enter a number ranging from 1 to 6 (1 for the smallest and 6 for the largest font size).

Step 6. Press EXEC to return to the edit screen with the new font size selected.

GLOSSARY

- Absolute Line:** This function locks a line in one position so that it may be used in a fixed position alone or as a part of a page buildup.
- Attributes:** Features or characteristics or many functions that can be selected using VP-2 keyboard commands.
- Base Line:** The lowest pixel value of characters on a given line (omitting ascenders or descenders). The base line is the lowest point on any particular line where a character can be positioned when creating text.
- Character Attributes:** Character parameters available for selection and display, including font, character color, edge type, edge color, etc.
- Composite Video:** NTSC (National Television Standards Commission) system of integrating video information and synchronizing pulses into one "composite video signal".
- Cursor:** White box or white bar that indicated position in the video display.
- Cursor Attributes:** Cursor attributes affect the same parameters as character attributes, but they are used to define the attributes that will be typed (i.e., at the cursor) as opposed to re-defining existing character attributes.
- Default Parameters:** The set of character, cursor, page and palette attributes that are automatically in effect when the VP-2 is powered on.
- EOL:** Abbreviation for end-of-line.

EOP:

Abbreviation for end-of-page.

Field:

One-half of a full video frame, since the VP-2 scans each frame twice (first the odd-numbered scan lines, and then the even-numbered scan lines) to maintain video quality. Full frames are completed 30 times per second, so fields take 1/60th of a second each.

Font:

A pre-programmed set of characters of a particular size and style.

Font Height:

The height (measured in scan lines) of the tallest letter in a particular font.

Genlock:

The process of synchronizing one video signal with another. The VP-2 will genlock to an external video signal source by using the external video signal's timing pulses as the VP-2 timing pulses.

Key Color:

An operator-selected color that is replaced with an external video source wherever the color occurs in the display.

Keyer:

The VP-2 circuit that controls the overlay of VP-2 video over external video.

Line:

A string of text characters, up to and including an end-of-line character.

Logo:

A pre-programmed graphics display module similar to a font, except that it only contains graphic logo displays in the positions normally occupied by characters.

Menu:	The on-screen listing of the VP-2's available functions. The menu also provides information as to which keystrokes are available to the operator during functions, etc.
Overlap:	A feature that allows the VP-2 to place characters in overlapping positions with other characters.
Page Attributes:	Formatting characteristics which affect the appearance of a page, including line spacing, margins, etc.
Page:	A complete video image, including background and text, terminated by an end-of-page.
Palette:	The "color table" for the VP-2, which contains 16 colors, any or all of which may be displayed at one time. These 16 colors are chosen from a total of 512 colors that the VP-2 is capable of creating.
Palette Animation:	Creating an animation illusion using a series of changing on-screen colors.
Pixel:	The smallest addressable unit on the video display. Also used as a unit for horizontal on-screen measurement (one horizontal scan line = 1510 pixels).
Prompt:	On-screen messages provided by the VP-2 to tell the operator what commands and functions are available, or what actions are expected.

Relative Line:

A line whose position on the screen is dependent on (hence relative to) previous lines on the page.

Scan Line:

Lines of video information "drawn" on the display. Also used as vertical on-screen measurement. (The video frame contains 482 scan lines from top to bottom.)

X Coordinate

The X coordinate provides the horizontal position of the cursor. The position number refers to the number of the pixel on the line.

Y Coordinate

The Y coordinate provides the vertical position of the cursor. The reference number provided is the raster line number.

CHYRONI

VIDEO PRODUCTS DIVISION

HEX LOCATIONS ON
BACK OF THIS CARD

ON KEYCAP
Line Segments

! 	@ 	# 	\$ 	% 	¢ 	& 	* 	(	) 	- 	+ 
1 	2 	3 	4 	5 	6 	7 	8 	9 	0 	- 	= 

Q 	W 	E 	R 	T 	Y 	U 	I 	O 	P 	" 
q 	w 	e 	r 	t 	y 	u 	i 	o 	p 	' 

ON FONT

A \ 	S \ 	D \ 	F / 	G \ 	H / 	J \ 	K / 	L \ 	:	" 
a / 	s / 	d / 	f \ 	g / 	h \ 	j / 	k \ 	l / 	;	' 

INT'L
ONLY

Z \ 	X \ 	C \ 	V \ 	B 	N / 	M 	< // 	>	?	" 
z / 	x / 	c / 	v / 	b / 	n \ 	m // 	, // 	.	/	' 

ON KEYCAP
Symbol Font

CHYRON

VIDEO PRODUCTS DIVISION

HEX LOCATIONS ON
BACK OF THIS CARD

!	@	#	\$	%	¢	&	*	(	)	-	+
1	2	3	4	5	6	7	8	9	0	-	=

Q	W	E	R	T	Y	U	I	O	P	"
q	w	e	r	t	y	u	i	o	p	'

ON FONT

A	S	D	F	G	H	J	K	L	:	"
a	s	d	f	g	h	j	k	l	;	'

Z	X	C	V	B	N	M	<	>	?
z	x	c	v	b	n	m	,	.	/



VIDEO PRODUCTS DIVISION

UC = UPPER CASE; LC = LOWER CASE

UC	21	40	23	24	25	5B	26	2A	28	29	5F	2B	
LC	31	32	33	34	35	36	37	38	39	30	2D	3D	
	!	@	#	\$	%	¢	&	*	(	)	—	+	
	1	2	3	4	5	6	7	8	9	0	-	=	
UC	51	57	45	52	54	59	55	49	4F	50	5E	5D	17C
LC	71	77	65	72	74	79	75	69	6F	70	60	5C	17B
	Q	W	E	R	T	Y	U	I	O	P	"	SP 2	SP 4
	q	w	e	r	t	y	u	i	o	p	,	CH 1	CH 3
UC	41	53	44	46	47	48	4A	4B	4C	3A	22	UC	
LC	61	73	64	66	67	68	6A	6B	6C	3B	27	LC	
	A	S	D	F	G	H	J	K	L	:	"		
	a	s	d	f	g	h	j	k	l	;	.		
UC	5A	58	43	56	42	4E	4D	3C	3E	3F	UC		
LC	7A	78	63	76	62	6E	6D	2C	2E	2F	LC		
	Z	X	C	V	B	N	M	<	>	?			
	z	x	c	v	b	n	m	,	.	/			

CHYRON FONT LIBRARY

Advertisers

abcdefghijklmnopqrstuvwxyz

Gothic

ABCDEFGHIJKLMNOPQRSTUVWXYZ

T.V. SCAN LINES: 24, 30, 36, 42, 48

1234567890 (&.,:``?!£\$«»»λ=æ-_-)

**American
Typewriter
Bold**

T.V. SCAN LINES: 48

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890 (&.,:;!?"'-_*\$#%/©)

BOLT BOLD

T.V. SCAN LINES: 46

ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890 (&.,:;!?"'""-_©#/#+=*%\$¢↑↓£)

BOLT MEDIUM

T.V. SCAN LINES: 28

ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890 (&.,:;!?"'-_."""%\$¢£)

**BOLT
MEDIUM LIGHT**

T.V. SCAN LINES: 30

ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890 (&.,:;!?"'/_;-_%\$¢£*""")

Cheltenham

T.V. SCAN LINES: 24

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890 (&.,:;!?"'-\$%£)

CHYRON FONT LIBRARY

Brush Script abcdefghijklmnopqrstuvwxyz

T.V. SCAN LINES: 24

ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890 :;= \$¢% / £ #

**Futura
Bold Condensed**

T.V. SCAN LINES: 32

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890 [& . , ; ! ? ' " " " * _ \$ ¢ % / £ #]

**Goudy
Heavyface
Condensed**

T.V. SCAN LINES: 32, 28

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ

1234567890 (& . , ; ! ? ' " " " _ \$ ¢ % / # + = ↑ ↓ 1/8 1/4 3/8 1/2 5/8 3/4 7/8)

Handel Gothic

T.V. SCAN LINES: 44, 24

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 (/ & ? ! . , ; - _ ' « »)

**Helvetica
Bold**

T.V. SCAN LINES: 58, 44, 30

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 (& . , ; ! ? " " " " - _ ' \$ ¢ % /)

**Helvetica
Medium**

T.V. SCAN LINES: 58, 44, 30, 18

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 (& . , ; ! ? " " " " - _ \$ ¢ % /)

Italia Bold

T.V. SCAN LINES: 24, 30, 36, 42, 48

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 (& . , ; " ? ! £ \$ ¢ = « »)

**Korinna
Bold**

T.V. SCAN LINES: 24, 30, 36, 42, 48

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 (& . , ; ? ! £ \$ ¢ « » —)

**Lubalin
Graph
Medium**

T.V. SCAN LINES: 24, 30, 36, 42, 48

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 (& . , ; " ¢ = * « » ^ ? ! £ \$ %)

Serif Gothic Bold

T.V. SCAN LINES: 36, 28

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 (& . , ; ! ? " " " " - _ \$ ¢ % / # « » ©)

Serifa

T.V. SCAN LINES: 32, 28, 22

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 [& ? ! £ \$. , ; ']

Windsor

T.V. SCAN LINES: 44, 34

abcdefghijklmnopqrstuvwxyz
ABCDEFGHIJKLMNOPQRSTUVWXYZ
1234567890 & . : ! ? " - _ * \$ ¢ % / + x = °